Kenya
Eastern Province
Mbeere District



Monitoring the situation of children and women

Multiple Indicator Cluster Survey 2008

Kenya National
Bureau of Statistics

United Nations
Children's Fund

MICS

Kenya
Eastern Province
Mbeere District



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The Mbeere district Multiple Indicator Cluster Survey (MICS), Eastern Province of Kenya was carried out by the Kenya National Bureau of Statistics (KNBS). Financial and technical support was provided by the United Nations Children's Fund (UNICEF).

The survey was conducted as part of the third round of MICS3 surveys, carried out around the world in more than 50 countries, in 2005-2006, following the first two rounds of MICS surveys that were conducted between 1995 and 2000. Survey tools were based on the models and standards developed by the global MICS project, designed to collect information on the situation of children and women in countries around the world. Additional information on the global MICS project may be obtained from www.childinfo.org.

Recommended citation:
Kenya National Bureau of Statistics. 2009. Mbeere district Multiple Indicator Cluster Survey 2008, Kenya: Kenya National Bureau of Statistics.

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List of Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
BCG	Bacillus Calmette Guerin (Tuberculosis)
CSPro	Census and Survey Processing System
DPT	Diphtheria Pertussis Tetanus
DSO	District Statistical Officer
EPI	Expanded Programme on Immunization
ERS	Economic Recovery Strategy
FGM/C	Female Genital Mutilation/Cutting
GOK	Government of Kenya
GPI	Gender Parity Index
HIV	Human Immunodeficiency Virus
IDD	Iodine Deficiency Disorders
ITN	Insecticide Treated Net
IUD	Intrauterine Device
KESSP	Kenya Education Sector Support Programme
KNBS	Kenya National Bureau of Statistics
LAM	Lactational Amenorrhea Method
MDG	Millennium Development Goals
MICS	Multiple Indicator Cluster Survey
MOH	Ministry of Health
NAR	Net Attendance Rate
NPA	National Programme of Action
ORT	Oral Rehydration Treatment
PPM	Parts Per Million
PRS	Poverty Reduction Strategy
SPSS	Statistical Package for Social Sciences
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNGASS	United Nations General Assembly Special Session on HIV/AIDS
UNAIDS	United Nations Programme on HIV/AIDS
UNICEF	United Nations Children's Fund
WFFC	World Fit for Children
WHO	World Health Organization
WSC	World Summit of Children

Foreword

The Mbeere district Multiple Indicator Cluster Survey (MICS) 2008 is one of the district level sample surveys conducted in the district. The survey covered 1,106 households selected using appropriate statistical procedures.

The objective of the district level MICS was to provide estimates relating to the well being of children and women at district level, to enable policymakers, planners, researchers and program managers take actions based on credible evidence. In MICS 2008, information on specific sectors such as reproductive health, child mortality, child health, nutrition, child protection, water and sanitation, education, and HIV/AIDS and orphans was collected.

The results indicate that infant and child mortality rate in Mbeere district is moderately high, and also there is a high proportion of children who are under-weight. It is also worth noting that the proportion of children under five months who are exclusively breastfed is one of the lowest in the province.

Nearly four out of five children aged 12-23 months are fully vaccinated by age 12 months, while nearly two thirds of households have at least one insecticide treated mosquito net.

I wish to acknowledge the efforts of various organizations and individuals who contributed immensely towards the success of the MICS 2008 survey. First, I would like to acknowledge the technical and financial assistance from the United Nations Children's Fund (UNICEF). The hard work and dedication of the staff of the Kenya National Bureau of Statistics (KNBS) and the staff of UNICEF is also acknowledged for successfully completing the survey and making results available.

Finally, I am grateful to the respondents who generously gave their time to provide the information and allowing the survey teams to measure the weights and heights of children below 5 years of age, that form the basis of this report.



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Executive Summary

The Mbeere district Multiple Indicator Cluster Survey (MICS) is a representative sample survey drawn using the 1999 Census of Kenya Enumeration Areas (EAs) as the sampling frame. The 50 EAs were sampled using the probability proportional to size (PPS) sampling methodology, and information from a total of 1,129 households were collected using structured questionnaires. The Mbeere district MICS is the largest household sample survey ever conducted in the district.

The survey used a two stage design and at the EA level households were stratified into two, one households with a child below 3 years and the other with no children below 3 years at the time of household listing[1]. The stratification at EA level was done to reduce the standard errors of child and women based estimates. The data was collected by two teams comprising of 5 members each, 1 supervisor, 1 editor/measurer and 3 investigators. The survey was implemented by the Kenya National Bureau of Statistics (KNBS), with the support from UNICEF Kenya. The summary of findings from the survey is presented below.

Child Mortality

The under-five mortality rate and the infant mortality rate were calculated using the birth history data for the 10 year period preceding the survey. The under-five mortality rate is 44 per 1,000 live births and infant mortality rate is 34 per 1,000 live births.

Nutritional Status and Breastfeeding

Nineteen per cent of the children aged 6-59 months in Mbeere district are severely or moderately underweight. Proportions of stunted and wasted children were 29 and four per cent respectively. Sixty per cent of the children were timely breastfed (given breast milk within an hour of birth), and 47 per cent of children aged 0-5 months were exclusively breastfed. The proportion of children weighed at the time of birth is 68 per cent. About 98 per cent were found to be using adequately iodized salt for cooking.

Immunization

Eighty four per cent of children aged 12-23 months received full vaccination (BCG, 3 doses of Polio, 3 doses of DPT+HepB+Hib and measles) before reaching age 12 months. BCG is reportedly given to 99 per cent of children aged 12-23 months and measles is received by 93 per cent. Seventy per cent of mothers who gave birth during the two years preceding the survey received tetanus toxoid (TT) injection.

Care of illness

Only 53 per cent of children with diarrhoea during the 2 weeks preceding the survey received oral re-hydration therapy and 14 per cent reported home management of diarrhoea. Sixty four per cent of the children who had suspected pneumonia received appropriate treatment and 54 per cent were given antibiotic treatment.

Malaria prevention

In Mbeere district, 70 per cent of the households have at least one insecticide treated mosquito net. Sixty two per cent of the children below five years with fever during two weeks preceding the survey were given an anti-malarial treatment. Seventy nine per cent of women who gave birth during two years preceding the survey received intermittent preventive treatment for malaria.

[1] The household listing was carried out by three teams, each team comprised of a lister and mapper.

Water and sanitation

Only 28 per cent of the Mbeere district population uses drinking water from an improved source with only 29 per cent treating their drinking water. Only 31 per cent of the population uses improved sanitation facilities, while 89 per cent of households dispose off children's stool safely.

Reproductive health

The total fertility rate in Mbeere district for the 3-year period preceding the survey is about five children per woman. The proportion of women aged 15-19 years who have began child bearing (teenage pregnancy rate) in Mbeere district is eight per cent. Ninety seven per cent of mothers who gave birth in the past 2 years had an antenatal care check-up. Sixty two per cent gave birth in health institutions. Nineteen per cent of women aged 20-49 years are married before reaching 18 years, while six per cent of women aged 15-19 years are currently married or in union.

Education

In Mbeere district, 57 per cent of primary school entry age children are attending primary school. The net primary school attendance rate is 92 per cent while that of secondary school is only 24 per cent. The female adult literacy rate in Mbeere district is 86 per cent.

Child protection

Sixty per cent of children under-five in Mbeere district have had their births registered. About 24 per cent of children aged 5-14 years in Mbeere district are engaged in child labour. Ninety one per cent of children aged 2-14 years received some form of psychological or physical punishment during one month prior to the survey.

HIV and AIDS

Only 47 per cent of young women aged 15-24 years in Mbeere district have comprehensive knowledge about HIV/AIDS prevention. Almost all women (98 per cent) have knowledge about mother-to-child transmission of HIV/AIDS. Fifty three per cent of women aged 15-49 years reported that they had been tested for HIV/AIDS. Ninety seven per cent of women who delivered in the last 2 years received counselling on prevention of mother-to-child transmission of HIV/AIDS, and 94 per cent had the HIV test done.

Orphans and vulnerable children

About six per cent of children below 18 years in Mbeere district are orphans and 11 per cent of them are vulnerable. Some five per cent of children below 18 years are not living with any biological parent.

Female genital mutilation/cutting (FGM/C) and domestic violence

Ninety eight per cent of women aged 15-49 years in Mbeere district have heard about FGM/C, while 60 per cent have undergone some form of FGM/C. Twelve per cent of women who have heard of FGM/C believe that the practice should be continued. Fifty nine per cent of women in Mbeere district believe that a husband can beat their wife if she goes out without telling him, or she neglects children, or she argues with him, or she refuses sex with him or she burns the food.

Summary Table of Findings

Multiple Indicator Cluster Surveys (MICS) and Millennium Development Goals (MDG) Indicators, Mbeere District, Eastern Province, Kenya, 2008

Topic	MICS Indicator Number	MDG Indicator Number	Indicator	Value & Unit	
CHILD MORTALITY					
Child mortality	1	13	Under-five mortality rate	44	per thousand
	2	14	Infant mortality rate	34	per thousand
NUTRITION					
Nutritional status			Underweight prevalence (below -2 SD)	18.7	Per cent
			Stunting prevalence (below -2 SD)	28.9	Per cent
			Wasting prevalence (below -2 SD)	3.9	Per cent
Breastfeeding	45		Timely initiation of breastfeeding	73.8	Per cent
	15		Exclusive breastfeeding rate	43.6	Per cent
	16		Continued breastfeeding rate		
			at 12-15 months	98.1	per cent
			at 20-23 months	61.4	per cent
	17		Timely complementary feeding rate	82.8	per cent
	18		Frequency of complementary feeding	77.1	per cent
	19		Adequately fed infants	61.2	per cent
Salt iodization	41		Iodized salt consumption	97.9	per cent
Vitamin A	42		Vitamin A supplementation (under-fives)	45.5	per cent
	43		Vitamin A supplementation (post-partum mothers)	60.4	per cent
Low birth weight	9		Low birth weight infants	8.8	per cent
	10		Infants weighed at birth	68.3	per cent
CHILD HEALTH					
Immunization	25		Tuberculosis immunization coverage (by 12 months)	98.8	per cent
	26		Polio immunization coverage (by 12 months)	91.8	per cent
	27		DPT immunization coverage (by 12 months)	96.7	per cent
	28	15	Measles immunization coverage (by 12 months)	94.1	per cent
	31		Fully immunized children (by 12 months)	85.8	per cent
Tetanus toxoid	32		Neonatal tetanus protection	69.8	per cent
Care of illness	33		Use of oral rehydration therapy (ORT)	53.0	per cent
	34		Home management of diarrhoea	13.6	per cent
	35		Received ORT or increased fluids, and continued feeding	24.6	per cent
	23		Care seeking for suspected pneumonia	64.4	per cent
	22		Antibiotic treatment of suspected pneumonia	53.8	per cent
Solid fuel use	24	29	Solid fuels	98.3	per cent
Malaria	36		Households having insecticide-treated nets (ITNs)	69.5	per cent
	37	22	Under-fives sleeping under insecticide-treated nets	63.2	per cent
	38		Under-fives sleeping under mosquito nets	66.0	per cent
	39	22	Antimalarial treatment (under-fives)	62.1	per cent
	40		Intermittent preventive malaria treatment (pregnant women)	78.7	per cent
ENVIRONMENT					
Water and Sanitation	11	30	Use of improved drinking water sources	27.5	per cent
	13		Water treatment	28.6	per cent
	12	31	Use of improved sanitation facilities	31.0	per cent
	14		Disposal of child's faeces	89.1	per cent

Topic	MICS Indicator Number	MDG Indicator Number	Indicator	Value & Unit	
REPRODUCTIVE HEALTH					
Contraception and unmet need	21	19c	Contraceptive prevalence	61.2	per cent
	98		Unmet need for family planning	2.5	per cent
Maternal and newborn health	20		Antenatal care	96.8	per cent
	44		Content of antenatal care		
			Blood test taken	93.7	per cent
			Blood pressure measured	93.9	per cent
			Urine specimen taken	90.0	per cent
			Weight measured	96.7	per cent
	4	17	Skilled attendant at delivery	62.5	per cent
	5		Institutional deliveries	61.5	per cent
			Total fertility rate	4.9	Rate
EDUCATION					
Education	52		Pre-school attendance	32.5	per cent
	53		School readiness	100	per cent
	54		Net intake rate in primary education	56.7	per cent
	55	6	Net primary school attendance rate	92.3	per cent
	56		Net secondary school attendance rate	23.6	per cent
			Adult literacy rate (female)	85.7	Per cent
CHILD PROTECTION					
Birth registration	62		Birth registration	59.7	per cent
Child labour	71		Child labour	23.9	per cent
	72		Labourer students	98.0	per cent
	73		Student labourers	24.3	per cent
Child discipline	74		Any psychological/physical punishment	90.8	per cent
Early marriage and polygamy	67		Marriage before age 15	2.7	per cent
			Marriage before age 18	18.7	per cent
	68		Young women aged 15-19 currently married/in union	5.9	per cent
Female genital mutilation/ Cutting	66		Approval for FGM/C	11.9	per cent
	63		Prevalence of female genital mutilation/cutting (FGM/C)	59.7	per cent
	64		Prevalence of extreme form of FGM/C	2.0	per cent
	65		FGM/C prevalence among daughters	14.0	per cent
Domestic violence	100		Attitudes towards domestic violence	58.8	per cent
HIV/AIDS, SEXUAL BEHAVIOUR, AND ORPHANED AND VULNERABLE CHILDREN					
HIV/AIDS knowledge and attitudes	82	19b	Comprehensive knowledge about HIV prevention among young people	57.7	per cent
	89		Knowledge of mother- to-child transmission of HIV	48.5	per cent
	86		Attitude towards people with HIV/AIDS	17.0	per cent
	87		Women who know where to be tested for HIV	94.3	per cent
	88		Women who have been tested for HIV	52.8	per cent
	90		Counselling coverage for the prevention of mother-to-child transmission of HIV	93.1	per cent
	91		Testing coverage for the prevention of mother-to-child transmission of HIV	93.8	per cent
Support to orphaned and vulnerable children	75		Prevalence of orphans	6.2	per cent
	78		Children's living arrangements	5.4	per cent
	76		Prevalence of vulnerable children	11.2	per cent
	77	20	School attendance of orphans versus non-orphans	1.01	ratio
	81		External support to children orphaned and made vulnerable by HIV/AIDS	38.8	per cent

Introduction 1

1.1 Background

This report is based on the Mbeere district Multiple Indicator Cluster Survey conducted in 2008 by the Kenya National Bureau of Statistics. The survey provides valuable information on the situation of children and women in Mbeere district, and was based, in large part, on the needs to monitor progress towards goals and targets emanating from recent international agreements: the Millennium Declaration, adopted by all 191 United Nations Member States in September 2000, and the Plan of Action of A World Fit For Children, adopted by 189 Member States at the United Nations Special Session on Children in May 2002. All these commitments build upon promises made by the international community at the 1990 World Summit for Children. In signing these international agreements, governments committed themselves to improving conditions for their children and to monitoring progress towards that end. UNICEF was assigned a supporting role in this task (see Box 1 below).

Box 1: A Commitment to Action: National and International Reporting Responsibilities

The governments that signed the Millennium Declaration and the World Fit for Children Declaration and Plan of Action also committed themselves to monitoring progress towards the goals and objectives they contained:

"We will monitor regularly at the national level and, where appropriate, at the regional level and assess progress towards the goals and targets of the present Plan of Action at the national, regional and global levels. Accordingly, we will strengthen our national statistical capacity to collect, analyse and disaggregate data, including by sex, age and other relevant factors that may lead to disparities, and support a wide range of child-focused research. We will enhance international cooperation to support statistical capacity-building efforts and build community capacity for monitoring, assessment and planning." (**A World Fit for Children**, paragraph 60)

"…We will conduct periodic reviews at the national and sub national levels of progress in order to address obstacles more effectively and accelerate actions.…" (**A World Fit for Children**, paragraph 61)

The Plan of Action (paragraph 61) also calls for the specific involvement of UNICEF in the preparation of periodic progress reports:

"… As the world's lead agency for children, the United Nations Children's Fund is requested to continue to prepare and disseminate, in close collaboration with Governments, relevant funds, programmes and the specialized agencies of the United Nations system, and all other relevant actors, as appropriate, information on the progress made in the implementation of the Declaration and the Plan of Action."

Similarly, the **Millennium Declaration** (paragraph 31) calls for periodic reporting on progress:

"…We request the General Assembly to review on a regular basis the progress made in implementing the provisions of this Declaration, and ask the Secretary-General to issue periodic reports for consideration by the General Assembly and as a basis for further action."

Kenya is committed to improving the welfare of its people particularly children and women who tend to be more vulnerable to social-economic hardships. With regard to children, the Government of Kenya (GOK) formulated the National Programme of Action (NPA) for children in 1992 soon after the World Summit for Children (WSC) which was held in 1990. The main objective of this programme was to identify issues affecting children and strategies to address them. Measuring indicators of progress towards declared goals through proper monitoring and evaluation of projects/programmes and other interventions, e.g. emergency response and humanitarian assistance are vital components of the NPA.

Proper monitoring and evaluation of targeted projects and programmes by the government and development partners requires a wide range of data to track progress towards achievement of desired outcomes. In this respect, MICS 2008 data from the district will be helpful in appraising national programmes such as Poverty Reduction Strategy (PRS), Economic Recovery Strategy (ERS), and the Kenya Education Sector Support Programme (KESSP) 2005-2010 among other programmes.

The GOK/UNICEF programme has a sizeable component of production of high quality and sufficiently disaggregated data for effective child friendly policy formulation and programme implementation.

Results from the MICS 2008 for Mbeere district in Eastern Province are presented in this report.

1.2 Survey Objectives

The 2008 Mbeere district Multiple Indicator Cluster Survey had the following as its primary objectives:

- To provide up-to-date information for assessing the situation of children and women in Mbeere district;
- To furnish data needed for monitoring progress toward goals established in the Millennium Declaration, the goals of A World Fit For Children (WFFC), and other internationally agreed upon goals, as a basis for future action; and
- To contribute to the improvement of data and monitoring systems in Kenya and to strengthen technical expertise in the design, implementation, and analysis within such systems.

Sample and Survey Methodology 2

2.1 Sample Design

The sample for the 2008 Mbeere district Multiple Indicator Cluster Survey (MICS) was designed to provide estimates on a large number of indicators on the situation of children and women at the district level, and was selected in two stages. At the district level, 50 clusters (census enumeration areas) were selected with probability proportional to size. After household listings were drawn up within the selected enumeration areas, households were stratified into two groups. The first stratum had households with children below 3 years, while the second did not have children below 3 years. A systematic sample of 16 households from the first stratum and 8 households from the second stratum was drawn using a random start. The sample was stratified but not self-weighted. However, for reporting the results, sample weights are used. A more detailed description of the sample design can be found in Appendix A.

2.2 Questionnaires

Three sets of questionnaires were used in the survey: 1) a household questionnaire which was used to collect information on all *de jure* household members, the household, and the dwelling; 2) a women's questionnaire administered in each household to all women aged 15-49 years; and 3) an under-5 questionnaire, administered to mothers or caretakers of all children below five years living in the household. The questionnaires included the following modules:

The Household Questionnaire included the following modules:

- Household Listing
- Education
- Water and Sanitation
- Malaria-related questions
- Child Labour
- Child Discipline
- Salt Iodization

The Questionnaire for individual women was administered to all women aged 15-49 years living in the households, and included the following modules:

- Child Mortality
- Tetanus Toxoid
- Maternal and Newborn Health
- Marriage and Union
- Contraception
- Attitudes Towards Domestic Violence
- Female Genital Mutilation/Cutting
- HIV/AIDS knowledge

The Questionnaire for children under five was administered to mothers or caretakers of children below five years of age[2] living in the households. The questionnaire was administered to mothers of the children below five years and in cases where the mother was not listed in the household roster, a primary caretaker for the child was identified and interviewed. The questionnaire included the following modules:

- Birth Registration and Early Learning
- Child Development
- Vitamin A
- Breastfeeding
- Care of Illness
- Malaria
- Immunization
- Anthropometry

The questionnaires were based on the MICS 3 model questionnaire[3]. From the MICS 3 model English version, the questionnaires were translated into Kiswahili, Borana, Kamba, Meru, and Embu languages.

In addition to the administration of questionnaires, fieldwork teams tested the salt used for cooking in the households for iodine content, and measured the weights and heights of children aged 0-59 months. Details and findings of these measurements are provided in the respective sections of the report.

2.3 Training and Fieldwork

Training for the fieldwork was conducted in two parts, 3 days training for the mapping and listing teams and 12 days training for the main survey teams in June 2008. Training included lectures on interviewing techniques and the contents of the questionnaires, and mock interviews between trainees to gain practice in asking questions. Towards the end of the training period, trainees spent one full day in practice interviewing in different locations of Mbeere district.

The household listing was carried out by 3 teams, each comprising of a lister and mapper. These three teams were supervised by the District Statistical Officer (DSO) and the whole listing operation was monitored by the district co-ordinator located at KNBS headquarters. The data were collected by 2 teams; each comprising of 3 interviewers, one driver, one editor/measurer and a supervisor. Fieldwork began towards the end of June 2008 and ended in August 2008.

2.4 Data Processing

Data were entered using the CSPro software. In order to ensure quality control, all questionnaires were double entered and internal consistency checks performed, with the whole process monitored by two supervisors. Procedures and standard programs developed under the global MICS 3 project and adapted to the modified questionnaire were used throughout. Data processing began simultaneously with data collection in July 2008 and was completed in September 2008. Data were analysed using the Statistical Package for Social Sciences (SPSS) software program, and the model syntax and tabulation plans developed by UNICEF were customized for this purpose.

[2] The terms “children below five years”, “children age 0-4 years”, and “children aged 0-59 months” are used interchangeably in this report.

[3] The model MICS3 questionnaire can be found at www.childinfo.org, or in UNICEF, 2006.

3.1 Sample Coverage

All the 1,200 households selected for the survey were found to be occupied. Among these, 1,129 were successfully interviewed giving a household response rate of 94 per cent. Among the households interviewed, 1,267 women (age 15-49) were identified, of whom, 1,156 were successfully interviewed yielding a response rate of 91 per cent. In addition, 1,111 children under age five were listed in the household questionnaire. Questionnaires were completed for 1,092 of these children, which corresponds to a response rate of 98 per cent. Overall response rates of 86 and 93 were realised for women and children interviews, respectively (Table 3.1).

Table 3.1 (HH.1): Results of household and individual interviews

Number of households, women, and children below five years by results of the interviews, and household, women's and under-five's response rates, MICS Mbeere district, 2008

Number of households	
Sampled (H_s)	1,200
Occupied (H_o)	1,200
Interviewed (H_i)	1,129
Response rate (H_r)	94.1
Number of women	
Eligible (W_e)	1,267
Interviewed (W_i)	1,156
Response rate (W_r)	91.2
Overall response rate (W_{or})	85.8
Number of children below five years	
Eligible (C_e)	1,111
Information collected (C_i)	1,092
Response rate (C_r)	98.3
Overall response rate (C_{or})	92.5

$H_r = H_i / H_o$ (where H_o is HH8 = 1, 2, 3 or 6)
$W_r = W_i / W_e$; $W_{or} = W_r \times H_r$;
$C_r = C_i / C_e$; $C_{or} = C_r \times H_r$

Note: This table is un-weighted, however all other tables presented in this report are weighted unless mentioned otherwise.

3.2 Characteristics of Households

The age and sex distribution of the survey population is provided in Table 3.2. The distribution is also used to produce the population pyramid in Figure 3.1. In the 1,129 households successfully interviewed in the survey, 4,935 household members were listed. Of these, 2,381 were males and 2,554 were females. The average household size is 4.4, which is lower than the projected household size of 4.9 for the year 2008.

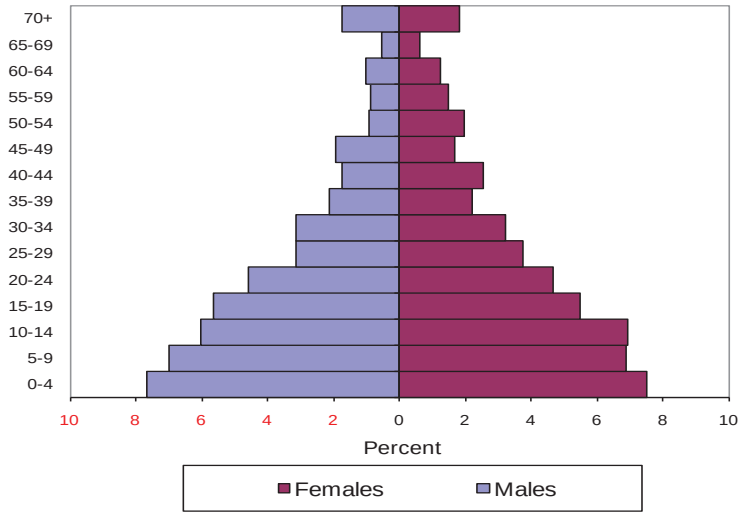
Table 3.2 (HH.2): Household age distribution by sex

Percentage distribution of the household population by five-year age groups and dependency age groups, and number of children aged 0-17 years, by sex, MICS Mbeere District, 2008

	Males		Females		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
Age						
0-4	378	15.9	369	14.4	747	15.1
5-9	345	14.5	338	13.2	683	13.8
10-14	297	12.5	340	13.3	637	12.9
15-19	278	11.7	269	10.5	547	11.1
20-24	228	9.6	230	9.0	459	9.3
25-29	156	6.6	184	7.2	340	6.9
30-34	155	6.5	157	6.1	312	6.3
35-39	105	4.4	108	4.2	212	4.3
40-44	86	3.6	125	4.9	211	4.3
45-49	96	4.0	82	3.2	179	3.6
50-54	47	2.0	97	3.8	144	2.9
55-59	44	1.8	72	2.8	116	2.4
60-64	50	2.1	60	2.4	110	2.2
65-69	27	1.1	30	1.2	57	1.2
70+	86	3.6	90	3.5	176	3.6
Missing/DK	3	0.1	2	0.1	5	0.1
Dependency age groups						
< 15	1020	42.8	1047	41.0	2067	41.9
15-64	1245	52.3	1385	54.2	2631	53.3
65 +	113	4.7	120	4.7	232	4.7
Missing/DK	3	0.1	2	0.1	5	0.1
Children aged 0-17	1184	49.7	1221	47.8	2405	48.7
Adults 18+/Missing/ DK	1197	50.3	1333	52.2	2530	51.3
Total	**2381**	**100.0**	**2554**	**100.0**	**4935**	**100.0**

The age distribution as presented in Table 3.2 indicates that 42 per cent of the population was below 15 years of age and 53 per cent were aged 15-64 years. The population aged 65 years and above was only about 5 per cent. The population aged 0-17 years was 49 per cent, an indication of a high dependency ratio and hence the need for interventions focussing on building the future of these children.

Figure 3.1: Age and Sex distribution of household population, MICS Mbeere district, 2008



Basic background information on the households, including sex of the household head and number of household members are provided in Table 3.3. The weighted and un-weighted numbers of total households are equal, since sample weights were normalized (See Appendix A). The table also shows the proportions of households with at least one child under 18, those with at least one child below five years, and those with at least one eligible woman aged 15-49 years.

Table 3.3 (HH.3): Household composition

Percentage distribution of households by selected characteristics, MICS Mbeere District, 2008

Characteristic	Weighted percentage	Number of households	
		Weighted	Un-weighted
Sex of household head			
Male	67.7	764	796
Female	32.3	365	333
Number of household members			
1	11.7	132	74
2-3	26.5	299	277
4-5	34.9	394	423
6-7	16.1	182	212
8-9	8.3	93	106
10+	2.6	29	37
Mean household size	4.4	NA	NA
At least one child aged < 18 years	77.2	1129	1129
At least one child aged < 5 years	49.0	1129	1129
At least one woman aged 15-49 years	74.7	1129	1129

In Mbeere district, 32 per cent of the households are headed by a female; 49 per cent have at least one child below 5 years of age; and 77 per cent of households have at least one child below 18 years of age. Three quarters of the households have at least one woman in the reproductive age group i.e., 15-49 years. The mean household size in Mbeere district is 4.4 persons.

3.3 Characteristics of Female Respondents

Table 3.4 provides information on the background characteristics of female respondents aged 15-49 years of age. It includes information on the distribution of women by region, age, marital status, motherhood status, education[4], wealth index[5], and religion. The total numbers of weighted and unweighted observations are equal, since sample weights were normalized (standardized).

Table 3.4 (HH.4): Women's background characteristics

Percentage distribution of women aged 15-49 years by background characteristics, MICS Mbeere District, 2008

Characteristic	Weighted percentage	Number of women	
		Weighted	Un-weighted
Age			
15-19	20.4	236	199
20-24	18.5	214	245
25-29	16.2	187	229
30-34	14.7	169	188
35-39	10.6	122	120
40-44	11.3	131	102
45-49	8.3	96	73
Marital/Union status			
Currently married/in union	60.9	704	772
Formerly married/in union	8.8	102	92
Never married/in union	30.3	351	292
Motherhood status			
Ever gave birth	72.9	843	913
Never gave birth	27.1	313	243
Education			
None	6.7	78	69
Primary	69.3	801	821
Secondary +	23.9	277	265
Wealth index			
Low	28.8	333	340
Medium	37.9	439	466
High	33.3	385	350
Total	**100**	**1156**	**1156**

[4] Unless otherwise stated, "education" refers to educational level attended by the respondent throughout this report when it is used as a background variable.

[5] Principal components analysis was performed by using information on the ownership of household goods and amenities (assets) to assign weights to each household asset, and obtain wealth scores for each household in the sample. (The assets used in these calculations were as follows: number of sleeping rooms, type of floor, type of roof, type of walls, type of fuel used for cooking, electricity, radio, television, telephone (mobile or land line), refrigerator, computer, internet connection, watch, bicycle, motorcycle or scooter, animal drawn cart, car or truck, boat with motor, source of drinking water and type of sanitation). Each household was then weighted by the number of household members, and the household population was divided into three groups, based on the wealth scores of households they were living in. The wealth index is assumed to capture the underlying long-term wealth through information on the household assets, and is intended to produce a ranking of households by wealth, from poorest to richest. The wealth index does not provide information on absolute poverty, current income or expenditure levels, and the wealth scores calculated are applicable for only the particular data set they are based on. Further information on the construction of the wealth index can be found in Rutstein and Johnson, 2004, and Filmer and Pritchett, 2001.

Overall, 61 per cent of the women aged between 15-49 years in Mbeere district are currently married with another 30 per cent reporting never married or not in union. Majority of the women have ever given birth (73 per cent). Most of the women have primary level education and are from the middle wealth index households.

3.4 Characteristics of Children below Five Years

Some background characteristics of children below five years are presented in Table 3.5. These include: sex, region and area of residence, age in months, mother's or caretaker's education and wealth index. Majority of the children are in the 12-23 month age group, few children are in the 6-11 month age group.

As pointed out earlier, majority of the women sampled have primary level education and the table below confirms that majority of have mothers educated to this level (64 per cent). The distribution of children below five years by wealth index shows that majority of the children are from high wealth index households.

Table 3.5 (HH.5): Children's background characteristics

Percentage distribution of children under five years of age by background characteristics, MICS Mbeere District, 2008

Characteristic	Weighted percentage	Number of under-5 children	
		Weighted	Un-weighted
Sex			
Male	50.8	555	489
Female	49.2	537	467
Age			
< 6 months	10.9	466	109
6-11 months	9.4	90	98
12-23 months	22.0	211	235
24-35 months	17.6	169	186
36-47 months	22.6	216	185
48-59 months	17.4	167	143
Mother's education			
None	6.5	62	65
Primary	63.6	608	606
Secondary +	29.9	286	285
Wealth index			
Low	13	124	132
Medium	41.2	394	404
High	45.8	438	420
Total	**100.0**	**956**	**956**

Child Mortality 4

One of the overarching goals of the Millennium Development Goals (MDGs) and the World Fit for Children (WFFC) is to reduce infant and under-five mortality. Specifically, the MDGs call for the reduction in under-five mortality by two-thirds between 1990 and 2015. Monitoring progress towards this goal is an important but difficult objective. Measuring childhood mortality may seem easy, but attempts using direct questions, such as "Has anyone in this household died in the last year?" give inaccurate results. However, the Mbeere district MICS utilized direct measures of child mortality from birth histories which is one of the best ways of obtaining this information. The birth history obtained from women aged 15-49 years includes the number of children ever born and living by sex, and date of birth of each child born. If the child was not alive at the time of the survey, information on age of the child at the time of death was also obtained. This method is being used by the Demographic and Health Surveys (DHS) worldwide including the Kenya Demographic Health Survey (KDHS), which allows comparison of the mortality rates with those of KDHS.

Infant mortality rate (IMR) is the probability of dying before the first birthday while the under-five mortality rate (U5MR) is the probability of dying before the fifth birthday. Neonatal mortality rate is the probability of dying before one month of life while post neonatal mortality rate is the probability of dying between one month and one year of life. Child mortality rate refers to the probability of dying between one and five years of life. All mortality rates mentioned above are expressed as deaths per 1,000 live births, except for child mortality rate, which is expressed per 1,000 children surviving up to 12 months of age.

Though direct estimates of mortality obtained from birth histories are some of the best, the quality of these mortality estimates depend on the completeness of information obtained in the birth histories. In many cases, women tend to avoid reporting their dead children and this underestimates the mortality levels.

4.1 Levels of Childhood Mortality

Table 4.1 provides estimates of childhood mortality for Mbeere district for the ten-year period preceding the survey by sex of the child. This permits monitoring of changes in childhood mortality rates.

Table 4.1 (CM.03): Child mortality

Infant, neonatal, post-neonatal, child and under-five mortality rates for 10-year period preceding the survey, MICS Mbeere District, 2008

Periods of analysis of 10 years	Neonatal mortality rate	Post-neonatal mortality rate	Infant mortality rate	Child mortality rate	Under-five mortality rate
0-9	21	13	34	11	44
10-19	15	29	44	20	63

For Mbeere district MICS 2008, the child mortality rate is 11 per 1,000, infant mortality rate is 34 per 1,000 live births, while the under five mortality is 44 per 1,000 live births. This means that 1 in every 23 children born in Mbeere district will not live to see their fifth birthday. Both childhood mortality rates are lower than those of an earlier period indicating decline in mortality and therefore improvement in child health and child survival in the district.

Child Nutrition 5

Children's nutritional status is a reflection of their overall health. Children who are well cared for and have access to an adequate food supply are not prone to repeated illnesses and are likely to reach their growth potential. Such children are considered to be well nourished.

Malnutrition is associated with more than half of all child deaths worldwide. Undernourished children are more likely to die from common childhood ailments, and for those who survive, they are more likely to have recurring sicknesses and faltering growth. Three-quarters of children who die from causes related to malnutrition are only mildly or moderately malnourished – showing no outward sign of their vulnerability. The Millennium Development target is to reduce by half the proportion of people who suffer from hunger between 1990 and 2015. The World Fit for Children goal is to reduce the prevalence of malnutrition among children under five years of age by at least one-third (between 2000 and 2010), with special attention to children under 2 years of age. A reduction in the prevalence of malnutrition will assist in the attainment of the goal towards reduction in child mortality.

5.1 Nutritional Status

In a well-nourished population, there is a reference distribution of height and weight for children under age five years of age. Under-nourishment in a population can be gauged by comparing children to a reference population. The reference population used in this report is the WHO/CDC/NCHS reference, which is recommended for use by UNICEF and the World Health Organization. Each of the three nutritional status indicators can be expressed in standard deviation units (z-scores) from the median of the reference population.

Weight-for-age (or *underweight*) is a measure of both acute and chronic malnutrition. Children whose weight-for-age is less than two standard deviations below the median of the reference population are considered 'moderately underweight' while those whose weight-for-age is less than three standard deviations below the median are classified as 'severely underweight'.

Height-for-age (or *stunting*) is a measure of linear growth. Stunting is a reflection of chronic malnutrition as a result of failure to receive adequate nutrition over a long period and recurrent or chronic illness. Children whose height-for-age is less than two standard deviations below the median of the reference population are considered short for their age and are classified as 'moderately stunted'. Those whose height-for-age is less than three standard deviations below the median are classified as 'severely stunted'.

Finally, children whose weight-for-height (or *wasting*) is less than two standard deviations below the median of the reference population are classified as 'moderately wasted', while those who fall less than three standard deviations below the median are 'severely wasted'. Wasting is usually the result of a recent nutritional deficiency. The indicator may exhibit significant seasonal shifts associated with changes in the availability of food or disease prevalence.

During the MICS 2008, weights and heights of all children aged 6-59 months were measured using anthropometric equipment recommended by UNICEF (UNICEF, 2006). Findings in this section are based on the results of these measurements.

Table 5.1 shows percentage of children classified into each of these categories, based on the anthropometric measurements that were taken during fieldwork and selected background characteristics. Additionally, the table includes the percentage of children who were overweight, which takes into account children whose weight for height was above 2 standard deviations from the median of the reference population.

Table 5.1 (NU.1): Child malnourishment

Percentage of children aged 6-59 months who are severely or moderately malnourished, MICS Mbeere District, 2008

	Weight-for-age percentage below		Height-for-age percentage below		Weight-for-height percentage below		percentage above	Number of children aged 6-59 months
Characteristic	-2 SD	-3 SD	-2 SD	-3 SD	-2 SD	-3 SD	+2 SD	
Sex								
Male	19.1	3.3	30.4	6.2	4.1	1.0	1.3	481
Female	18.3	3.2	27.4	6.6	3.7	0.9	2.0	467
Age								
6-11 months	22.9	4.3	29.1	5.8	7.6	3.7	.4.7	89
12-23 months	25.8	6.2	44.1	10.6	7.1	1.9	3.2	229
24-35 months	23.0	3.5	28.2	6.6	4.3	0.3	1.2	219
36-47 months	15.6	2.4	27.9	4.9	1.9	0.5	0.0	185
48-59 months	8.4	0.4	14.6	2.9	0.4	0.0	0.2	222
Mother's education								
None	20.1	3.8	36.3	5.0	4.9	1.9	1.2	71
Primary	19.5	3.6	29.4	7.3	3.6	0.9	0.9	683
Secondary +	15.6	1.8	24.6	3.6	4.7	0.8	4.4	194
Wealth index								
Low	24.2	6.2	36.3	9.7	5.3	1.7	1.5	263
Medium	18.1	2.7	26.0	6.2	4.1	1.2	2.3	406
High	14.6	1.4	26.2	3.5	2.3	0.0	1.0	279
Total	**18.7**	**3.3**	**28.9**	**6.4**	**3.9**	**1.0**	**1.7**	**948**

Columns 1 and 2 refer to children whose weight-for-age z-scores (i.e., the exact number of standard deviations from the median) fall below -2 standard deviations (moderately underweight) and 3 standard deviations (severely underweight) from the median weight-for-age of the NCHS reference population. Columns 3 and 4 refer to children whose height-for-age z-scores fall below 2 standard deviations (moderately stunted or short for their age) and 3 standard deviations (severely stunted or short for their age) from the median height-for-age of the reference population. Stunted children are considered as chronically undernourished. Columns 5 and 6 refer to children whose weight-for-height z-scores fall -2 standard deviations (moderately wasted) or -3 standard deviations (severely wasted) from the weight-for-height of the reference population. Wasting is usually the result of a recent nutritional deficiency. The table also includes the percentage of children who are overweight, which takes into account those children whose weight-for-height is above 2 standard deviations from the median of the reference population.

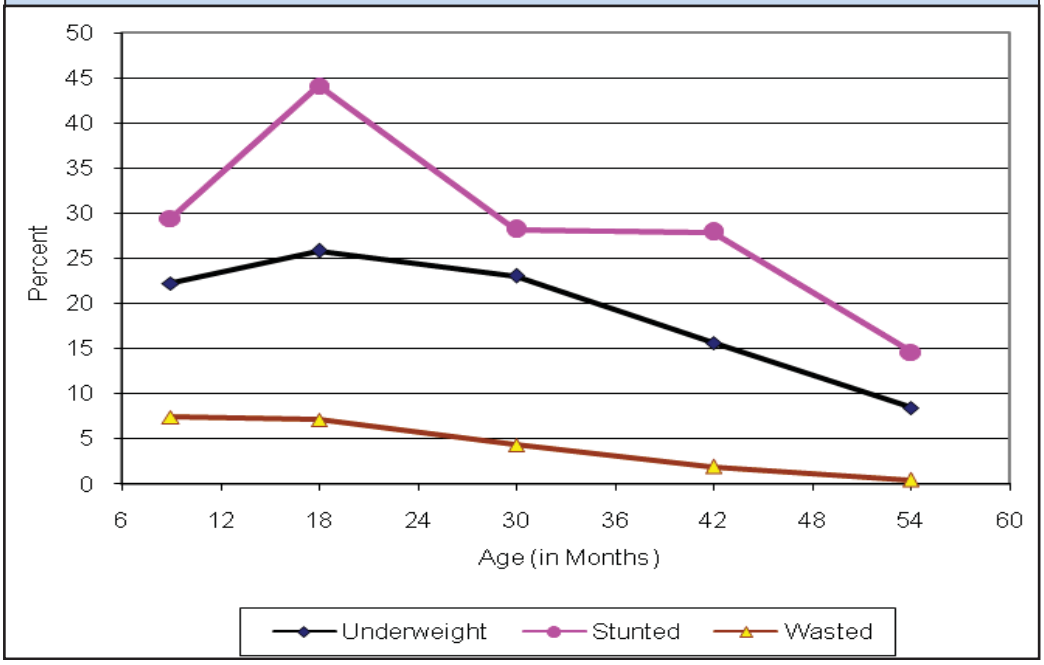
The percentage 'below -2 standard deviations' includes those who fall 3 standard deviations below the median.

Children whose height or weight was missing were excluded from the calculations. If height and weight data were missing for more than 10 per cent of under-five children, caution should be exercised in the interpretation of the results. In addition, children for whom the indices were out of range were omitted.

A third of children under five years of age in Mbeere district are moderately stunted or too short for their age (29 per cent). The results show that stunting is the most common nutritional problem among children in the district. About 19 per cent of the children in Mbeere district aged 6-59 months are moderately underweight. Wasting is not a serious problem in the area with only about four per cent of children found to be moderately wasted. There is no evidence of overweight children in Mbeere district.

Children whose mothers have secondary or higher education are less likely to be underweight and stunted compared to children with mothers who have no education. Boys appear to be slightly more likely to be underweight, stunted, and wasted than girls. As expected, children from households grouped into the low wealth index are more likely to be malnourished compared to their counterparts from the middle and higher wealth index households.

Figure 5.1: Percentage of children age 6-59 months who are undernourished, MICS Mbeere district, 2008



The age pattern (Figure 5.1) shows that a higher proportion of children aged 12-23 months are underweight and stunted compared to children who are older. This pattern is expected and is related to the age at which many children cease to be breastfed and are exposed to contamination from water, food, and the playing environment.

5.2 Breastfeeding

Breastfeeding for the first few years of life protects children from infection, provides an ideal source of nutrients, and is economical and safe. However, many mothers stop breastfeeding too soon and there are often pressures to switch to infant formula, which can contribute to growth faltering, micronutrient deficiency and is unsafe if clean water is not readily available. The World Fit for Children goal states that children should be exclusively breastfed for 6 months and continue to be breastfed with safe, appropriate and adequate complementary feeding for up to 2 years of age and beyond.

WHO/UNICEF have the following feeding recommendations:

- Exclusive breastfeeding for first six months
- Continued breastfeeding for two years or more
- Safe, appropriate and adequate complementary foods beginning at 6 months
- Frequency of complementary feeding: 2 times per day for 6-8 month olds; 3 times per day for 9-11 month olds

It is also recommended that breastfeeding be initiated within one hour of birth.

The indicators for the recommended child feeding practices are as follows:

- Exclusive breastfeeding rate (< 4 months & < 6 months)
- Timely complementary feeding rate (6-9 months)
- Continued breastfeeding rate (12-15 & 20-23 months)
- Timely initiation of breastfeeding (within 1 hour of birth)
- Frequency of complementary feeding (6-11 months)
- Adequately fed infants (0-11 months)

Table 5.2 provides the proportion of women who started breastfeeding their infants within one hour of birth, and women who started breastfeeding within one day of birth (which includes those who started within one hour). Breastfeeding of infants within an hour of birth was done by 65 per cent of mothers in Mbeere district. There were small variations in initiation of breastfeeding by the level of education of mothers. Surprisingly, mothers who are more educated were less likely to initiate breastfeeding (58 per cent) within an hour of birth compared to their counterparts with lower education (67 per cent). Mothers from the low wealth index households were also more likely to initiate breastfeeding within an hour of birth compared to those from wealthier households.

Table 5.2 (NU 2): Initial breastfeeding

Percentage of women aged 15-49 years with a birth in the two years preceding the survey who breastfed their baby within one hour of birth and within one day of birth, MICS Mbeere District, 2008

Characteristic	Percentage who started breastfeeding within one hour of birth	Percentage who started breastfeeding within one day of birth	Number of women with a live birth in the two years preceding the survey
Months since birth			
< 6 months	73.8	90.5	74
6-11 months	62.3	92.1	77
12-23 months	61.3	91.5	160
More than 23 months	77.0	77.0	3
Mother's education			
None	66.8	87.1	17
Primary	66.4	92.2	235
Secondary +	57.5	88.6	62
Wealth index			
Low	72.0	94.8	92
Medium	63.0	92.6	138
High	59.4	85.0	84
Total	**64.7**	**91.2**	**314**

In Tables 5.3a and 5.3b, breastfeeding status based on the reports of mothers/caretakers of children's consumption of food and fluids in the 24 hours prior to the interview is presented. Exclusively breastfed refers to infants who received only breast milk (and vitamins, mineral supplements, or medicine). The tables show exclusive breastfeeding of infants during the first six months of life (separately for 0-3 months and 0-5 months), as well as complementary feeding of children aged 6-9 months and continued breastfeeding of children aged 12-15 and 20-23 months.

Approximately 44 per cent of children aged 0-5 months were exclusively breastfed; this was one of the highest levels reported in the province. Comparison of exclusive breastfeeding between infants aged 0-3 months and those aged 0-5 months shows that those from lower wealth index households are more likely to be exclusively breastfed than their counterparts in wealthier households.

Table 5.3a (NU.3): Breastfeeding

Percentage of living children according to breastfeeding status at each age group, MICS Mbeere District, 2008

Characteristic	Children age 0-3 months: Percentage exclusively breastfed	Children age 0-3 months: Number of children	Children age 0-5 months: Percentage exclusively breastfed	Children age 0-5 months: Number of children
Sex				
Male	45.2	35	43.7	49
Female	47.9	36	44.6	50
Mother's education				
None	0.0	3	0.0	4
Primary	46.4	54	44.3	73
Secondary +	57.1	14	51.0	23
Wealth index				
Low	62.4	22	63.7	27
Medium	38.0	33	35.7	50
High	43.0	16	39.6	22
Total	**46.6**	**71**	**44.1**	**99**

Note: Breastfeeding status is based on mother's or caretaker's reports of children's consumption in the 24 hours prior to the interview. Exclusive breastfeeding refers to children who receive only breast milk, or breast milk and vitamins, mineral supplements, or medicine.

Table 5.3b presents findings on complementary feeding for children aged 6-9 months; 12-15 months and 20-23 months. The results show that 83 per cent of children aged 6-9 months are receiving breast milk and solid or semi-solid foods. The level of complementary feeding reduces with increasing age of the child. For those aged 12 -15 months, 70 per cent are receiving adequate complementary feeding, while for those aged 20-23 months, only 61 per cent of the children are receiving adequate complementary feeding.

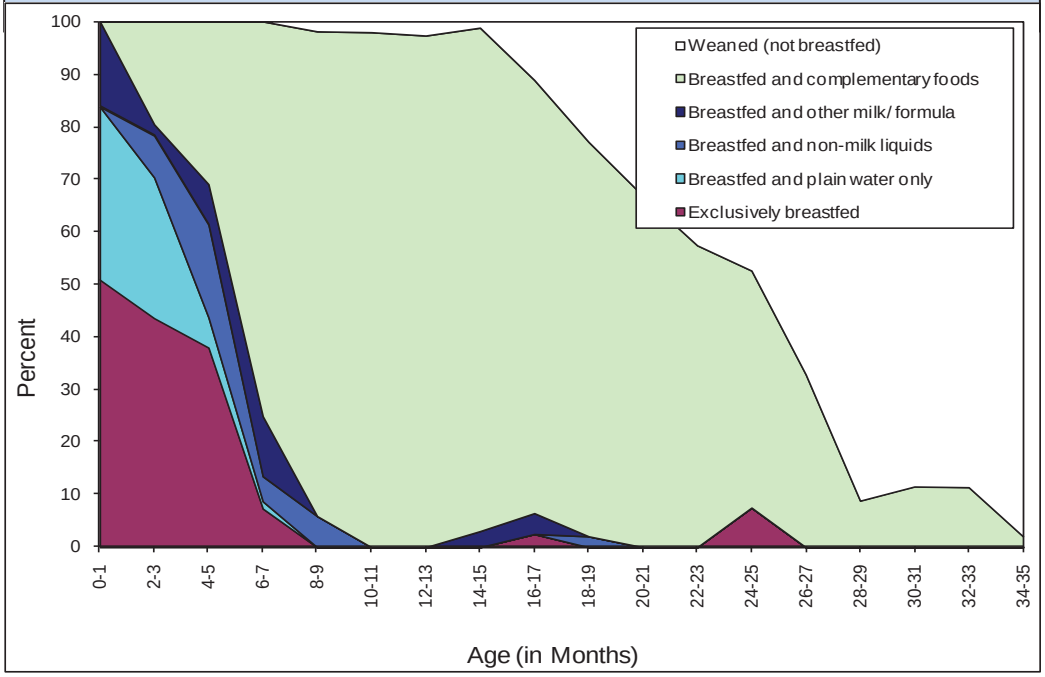
Table 5.3b (NU.3): Complementary feeding

Percentage of living children according to breastfeeding status at each age group, MICS Mbeere District, 2008

Characteristic	Children age 6-9 months: Percentage receiving breast milk and solid/ mushy food	Children age 6-9 months: Number of children	Children age 12-15 months: Percentage breastfed	Children age 12-15 months: Number of children	Children age 20-23 months: Percentage breastfed	Children age 20-23 months: Number of children
Sex						
Male	84.7	40	95.8	32	62.5	41
Female	80.5	29	100.0	38	60.3	45
Mother's education						
None	100.0	3	69.0	3	44.1	11
Primary	76.7	51	99.2	53	59.6	59
Secondary +	100.0	15	100.0	14	80.1	16
Wealth index						
Low	85.9	16	100.0	23	63.2	23
Medium	76.2	22	100.0	35	65.0	37
High	86.3	30	88.2	11	54.3	26
Total	**83.0**	**69**	**98.1**	**70**	**61.4**	**86**

Figure 5.2 shows the detailed pattern of breastfeeding by the child's age in months. Even at the earliest ages, majority of children were receiving liquids or foods other than breast milk with only 47 per cent of children exclusively breastfeeding up to three months. By the end of the fifth month, the proportion of children exclusively breastfed was 44 per cent.

Figure 5.2: Percentage distribution of children aged less than 3 years by feeding pattern



Various criteria of adequate feeding are used depending on the age of the child. For infants aged 0-5 months, exclusive breastfeeding is considered as adequate feeding. Infants aged 6-8 months are considered to be adequately fed if they are receiving breast milk and complementary food at least two times per day, while infants aged 9-11 months are considered to be adequately fed if they are receiving breast milk and eating complementary food at least three times a day. The adequacy of infant feeding in children below 12 months is provided in Table 5.4 (NU.4)

About 61 per cent of infants aged 0-11 months in Mbeere district are adequately fed. As would be expected, the proportion of 0-11 month old infants who were appropriately fed is higher among children from the high wealth index households (69 per cent) compared to 64 and 54 per cent among low and medium wealth index households, respectively.

Table 5.4 (NU.4): Adequately fed infants

Percentage of infants under 6 months of age exclusively breastfed, percentage of infants 6-11 months who are breastfed and who ate solid/semi-solid food at least the minimum recommended number of times yesterday and percentage of infants adequately fed, MICS Mbeere District, 2008

	Percentage of infants					
Characteristics	0-5 months exclusively breastfed	6-8 months who received breast milk and complementary food at least 2 times in prior 24 hours	9-11 months who received breast milk and complementary food at least 3 times in prior 24 hours	6-11 months who received breast milk and complementary food at least the minimum recommended number of times per day	0-11 months who were appropriately fed	Number of infants aged 0-11 months
Sex						
Male	43.7	64.8	79.8	73.2	60.5	115
Female	44.6	78.1	88.1	83.2	62.1	91
Mother's education						
None	(*)	(*)	(*)	(*)	(*)	9
Primary	44.3	58.3	82.9	72.1	58.7	153
Secondary +	51.0	100.0	94.4	97.7	74.1	45
Wealth index						
Low	63.7	49.3	73.1	65.2	64.4	54
Medium	35.7	59.9	89.3	76.7	54.0	91
High	39.6	86.6	84.7	85.8	68.9	61
Total	**44.1**	**70.3**	**82.8**	**77.1**	**61.2**	**206**

( ): Based on un-weighted cases. 25-50
(*): Based on less than 25 un-weighted cases.

5.3 Salt Iodization

Iodine Deficiency Disorders (IDD) is one of the world's leading causes of preventable mental retardation and impaired psychomotor development in young children. In its most extreme form, iodine deficiency causes cretinism. It also increases the risks of stillbirth and miscarriage in pregnant women. Iodine deficiency is more commonly and visibly associated with goitre. IDD takes its greatest toll in impaired mental growth and development, contributing in turn to poor performance in school, reduced intellectual ability, and impaired work performance. One of the indicators used to measure iodine deficiency disorder is the percentage of households consuming adequately iodized salt (>15 parts per million).

Table 5.5 presents findings on the salt used for cooking in the households. Salt was tested for iodine content by using salt test kits and testing for the presence of potassium iodide while one per cent of households did not have salt available. Majority of the households (98 per cent) are using adequately iodized salt (i.e. containing 15 or more parts per million (ppm)). Not much variation was observed in the use pattern of iodized salt by household wealth index.

Table 5.5: (NU.5): Iodized salt consumption

Percentage of households consuming adequately iodized salt, , Mbeere District, 2008

Characteristic	Percentage of households in which salt was tested	Number of households interviewed	Percentage of households with Salt test result: No salt	< 15 PPM	15+ PPM	Total	Number of households in which salt was tested or with no salt
Wealth index							
Low	97.3	333	2.7	2.6	94.7	100	333
Medium	99.9	439	0.1	0.6	99.2	100	439
High	100.0	357	0.0	0.7	99.3	100	357
Total	**99.1**	**1129**	**0.9**	**1.2**	**97.9**	**100**	**1129**

5.4 Vitamin A Supplements

Vitamin A is essential for child development, eye health and proper functioning of the immune system. It is found in foods such as milk, liver, eggs, red and orange fruits, red palm oil and green leafy vegetables, although the amount of vitamin A readily available to the body from these sources varies widely. In developing countries, where vitamin A is largely consumed in the form of fruits and vegetables, daily per capita intake is often insufficient to meet dietary requirements. Inadequate intakes are further compromised by increased requirements for the vitamin as children grow or during periods of illness, as well as increased losses during common childhood infections. As a result, vitamin A deficiency is quite prevalent in the developing world and particularly in countries with the highest burden of under five deaths.

The 1990 World Summit for Children set the goal of virtual elimination of vitamin A deficiency and its consequences, including blindness, by the year 2000. This goal was also endorsed at the Policy Conference on Ending Hidden Hunger in 1991, the 1992 International Conference on Nutrition, and the UN General Assembly's Special Session on Children in 2002. The critical role of vitamin A for child health and immune function also makes control of deficiency a primary component of child survival efforts, and therefore critical to the achievement of the fourth Millennium Development Goal: a two-thirds reduction in under-five mortality by the year 2015.

For countries with vitamin A deficiency problems, current international recommendations call for high-dose vitamin A supplementation every four to six months, targeted to all children between the ages 6-59 months living in affected areas. Providing young children with two high-dose vitamin A capsules a year is a safe, cost-effective, efficient strategy for eliminating vitamin A deficiency and improving child survival. Giving vitamin A to new mothers who are breastfeeding helps protect their children during the first months of life and helps to replenish the mother's stores of vitamin A, which are depleted during pregnancy and lactation. For countries with vitamin A supplementation programs, the definition of the indicator is the proportion of children aged 6-59 months receiving at least one high dose vitamin A supplement in the last six months.

Based on UNICEF/WHO guidelines, the Ministry of Health, Government of Kenya recommends that children aged 6-11 months be given one high dose vitamin A capsules and children aged 12-59 months be given a vitamin A capsule every 6 months. In some parts of the country, vitamin A capsules are linked to immunization services and are given when the child has contact with these services after six months of age. It is also recommended that mothers take a Vitamin A supplement within eight weeks of giving birth due to increased vitamin A requirements during pregnancy and lactation.

Table 5.6 shows children's vitamin A supplementation by selected background characteristics such as sex, age of child, mother's education and the household's wealth index.

Table 5.6 (NU.6): Children's vitamin A supplementation

Percentage distribution of children aged 6-59 months by whether they have received a high dose vitamin A supplement in the last 6 months, MICS Mbeere District, 2008

Characteristic	Percentage of children who received vitamin A: Within last 6 months	Prior to last 6 months	Not sure when	Not sure if received vitamin A	Never received vitamin A	Total	Number of children aged 6-59 months
Sex							
Male	47.5	31.7	10.9	1.8	6.5	100.0	505
Female	43.5	37.4	11.1	1.0	6.0	100.0	487
Age							
6-11 months	65.6	0.0	0.8	0.8	20.2	100.0	107
12-23 months	63.1	24.7	4.2	1.2	6.7	100.0	229
24-35 months	49.5	39.9	6.0	1.0	3.6	100.0	229
36-47 months	33.4	47.6	14.0	1.8	3.2	100.0	196
48-59 months	25.1	44.4	25.1	2.0	3.4	100.0	232
Mother's education							
None	38.7	39.8	5.8	9.2	6.5	100.0	86
Primary	42.8	36.4	11.4	0.7	7.2	100.0	707
Secondary +	58.1	25.4	11.8	0.7	2.6	100.0	200
Wealth index							
Low	40.7	35.0	11.3	2.5	10.2	100.0	273
Medium	46.5	37.5	8.2	1.1	5.5	100.0	421
High	48.5	29.9	14.5	0.9	3.6	100.0	299
Total	**45.5**	**34.5**	**11.0**	**1.4**	**6.2**	**100.0**	**993**

Within the six months prior to the survey, 46 per cent of children aged 6-59 months in Mbeere district received a high dose Vitamin A supplement. However, 35 per cent of children received the supplement in the last 6 months prior to the survey. The age pattern of Vitamin A supplementation in the last six months indicates a declining coverage with age; from a high of 66 per cent among children aged 6-11 months to a low of 25 per cent among children aged 48-59 months.

Improving levels of the mother's education increases the likelihood of a child receiving the Vitamin A supplementation. The proportion of children receiving a supplement in the last six months increased from 39 per cent among children whose mothers have no education to 43 and 58 per cent among those whose mothers have primary and secondary or higher level of education, respectively. Vitamin A supplementation coverage also increases with increasing levels of the household wealth index.

Table 5.7 shows post-partum mother's vitamin A supplementation by the education level of mother and household wealth index.

Table 5.7 (NU.7): Post-partum mothers' vitamin A supplementation

Percentage of women aged 15-49 years with a live birth in the 2 years preceding the survey by whether they received a high dose vitamin A supplement before the infant was 8 weeks old, Mbeere District, 2008

Characteristic	Received vitamin A supplement*	Not sure if received vitamin A	Number of women aged 15-49 years
Education			
None	55.5	0.0	17
Primary	59.5	0.1	235
Secondary +	65.4	0.0	62
Wealth index			
Low	62.4	0.4	92
Medium	54.7	0.0	138
High	67.8	0.0	84
Total	**60.4**	**0.1**	**314**

* The numerator includes all women who say they received a vitamin A dose in the first two months after their last birth (even if their last birth was less than two months prior to the interview). The denominator includes women who had a live birth in the two years preceding the date of interview.

For women who had a live birth in the 2 years before the survey, 60 per cent received a Vitamin A supplement within eight weeks of giving birth. Vitamin A coverage increases with increasing levels of the education of the mother. For example, 56 per cent of mothers with no education received Vitamin A compared to 60 and 65 per cent among women with primary and secondary education, respectively.

5.5 Low Birth Weight

Weight at birth is a good indicator not only of a mother's health and nutritional status but also the newborn's chances for survival, growth, long-term health and psychosocial development. Low birth weight (less than 2,500 grams) carries a range of grave health risks for children. Babies who were undernourished in the womb face increased risk of dying during their early months and years. Low birth weight may be associated with impaired immune function and increased risk of disease, under nutrition, reduced muscle strength, throughout the children's lives. Low birth weight is a contributing factor to higher incidence of diabetes and heart disease in later life. Children born underweight also tend to have cognitive disabilities, poor performance in school and low endurance at work.

In the developing world, low birth weight stems primarily from the mother's poor health and nutrition. Three factors have most impact:

- the mother's poor nutritional status before conception,
- short stature (due mostly to under nutrition and infections during her childhood) and
- poor nutrition during the pregnancy

Inadequate weight gain during pregnancy is particularly important since it accounts for a large proportion of foetal growth retardation. Moreover, diseases such as diarrhoea and malaria, which are common in many developing countries, can significantly impair foetal growth if the mother becomes infected while pregnant.

One of the major challenges in measuring the incidence of low birth weight is the fact that more than half of infants in the developing world are not weighed. In the past, most estimates of low birth weight for developing countries were based on data compiled from health facilities. However, these estimates are biased for most developing countries because the majority of newborns are not delivered in facilities, and those who are represent only a selected sample of all births. Because many infants are not weighed at birth and those who are weighed may be a biased sample of all births, the reported birth weights usually cannot be used to estimate the prevalence of low birth weight among all children. Therefore, the percentage of births weighing below 2500 grams is estimated from two items in the questionnaire: the mother's assessment of the child's size at birth (i.e., very small, smaller than average, average, larger than average, very large) and the mother's recall of the child's weight or the weight as recorded on a health card if the child was weighed at birth[6].

Table 5.8 shows the incidence of low birth weight by the education level of the mother and household wealth index in Mbeere district.

Table 5.8 (NU.8): Low birth weight infants

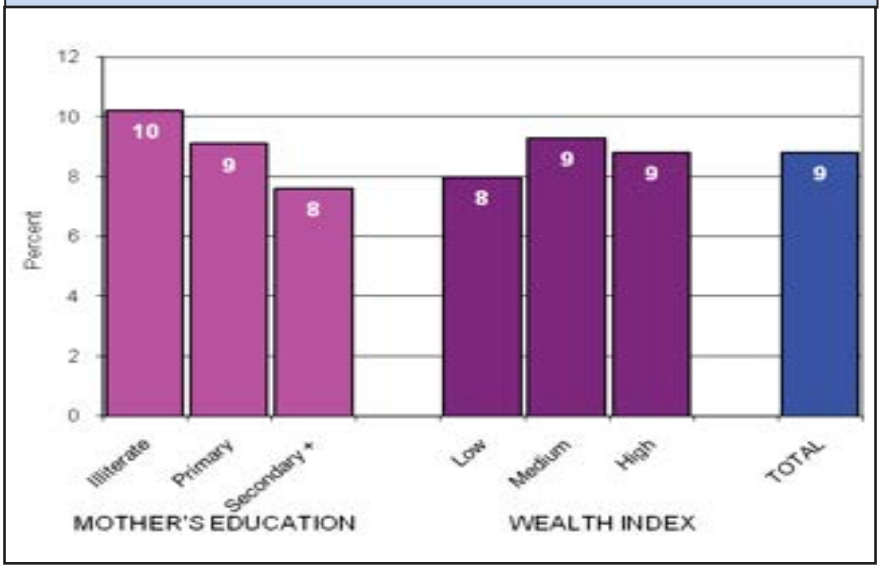
Percentage of live births in the 2 years preceding the survey that weighed below 2500 grams at birth, MICS Mbeere District, 2008

	Percentage of live births:		
Characteristic	Below 2500 grams	Weighed at birth	Number of live births
Mother's education			
None	(*)	(*)	17
Primary	9.5	65.2	235
Secondary +	8.2	85.3	62
Wealth index			
Low	8.1	56.8	92
Medium	10.1	68.8	138
High	8.8	82.0	84
Total	**9.3**	**68.3**	**314**

Overall, 68 per cent of births in Mbeere district were weighed at birth while about nine per cent of infants have low birth weight. There is a slight variation in the proportion of live births below 2500 grams by mother's education and wealth index. However, the proportion weighed at birth by mother's education and household wealth index varies more (see Figure 5.3).

[6] For a detailed description of the methodology, see Boerma, Weinstein, Rutstein and Sommerfelt, 1996.

Figure 5.3: Percentage of infants weighing less than 2500 grams at birth



A higher proportion of mothers with higher levels of education had their babies weighed at birth. Similarly, about 82 per cent of mothers from the high wealth index had their babies weighed at birth versus only 57 per cent among those from the low wealth index households.

5.6 Food Relief

As a result of the periodic food shortages occasioned by drought, the country has over time become a net food importer. These food imports which include cereals such as maize, rice and wheat are meant for commercial purposes. In addition, the country obtains food aid which is distributed through the provincial administration to sections of the population who may have been affected by drought. The government, through the National Cereals & Produce Board (NCPB), also maintains strategic reserves of about 3 million bags of maize which is mainly for relief purposes. Mbeere district is generally semi arid and hence has from time to time been a beneficiary of food relief. As shown in Table 5.9, about 15 per cent of the population in the district are registered for food relief. This proportion of households decreases with increasing levels of the household wealth index. Only two per cent of households in the district reported that they had sufficient food supply, with almost all households receiving food aid every six months.

Table 5.9 (NU.9): Food relief

Percentage of households registered as beneficiary of food distribution program, and of those registered time of last receipt of food and whether meeting their full requirement or not, Mbeere District, 2008

Characteristic	Percentage households registered as beneficiary of food distribution	Total number of households	Percentage of households by time last receipt of food distribution				Percentage of households reporting sufficient supply	Household registered as food beneficiary
			Between 1-3 months	Between 4-6 months	After 6 months	Total per cent		
Wealth index								
Low	18.9	333	0.0	0.0	100.0	100.0	2.2	63
Medium	18.7	439	0.6	2.9	96.5	100.0	3.6	82
High	7.7	357	1.9	0.0	98.1	100.0	0.2	27
Total	**15.3**	**1129**	**0.6**	**1.4**	**98.0**	**100.0**	**2.1**	**172**

Child Health 6

6.1 Immunization

The fourth Millennium Development Goal (MDG) is to reduce child mortality by two thirds between 1990 and 2015. Immunization plays a key role towards the achievement of this goal. Immunizations have saved the lives of millions of children in the three decades since the launch of the Expanded Programme on Immunization (EPI) in 1974. Worldwide, there are still 27 million children overlooked by routine immunization and as a result, vaccine-preventable diseases cause more than 2 million deaths every year.

A World Fit for Children goal is to ensure full immunization of children below one year of age at 90 per cent nationally, with at least 80 per cent coverage in every district or equivalent administrative unit. The Kenya Expanded Programme on Immunizations (KEPI) and the *Malezi Bora* campaigns (A comprehensive initiative to protect children's health in Kenya) are playing key roles in this regard.

In Kenya, and in accordance with the Ministry of Health guidelines, a child should receive a BCG vaccination to protect him/her against tuberculosis, three doses of DPT to protect against diphtheria, pertussis and tetanus and three doses of polio vaccine by the age of 12 months. The measles vaccine should be administered by the age of 9 months. This is in accordance with the UNICEF and WHO guidelines.

In MICS 2008, mothers or care givers of children below five years of age were asked to provide vaccination cards and interviewers copied vaccination information from the cards onto the questionnaire. However, information about children with no immunization cards was obtained using a set of structured direct questions on immunization. The immunization coverage shown in this report includes information from cards as well as recall by mothers and caregivers, unless mentioned otherwise.

Table 6.1 shows vaccination coverage rates among children aged 12-23 months who received each of the vaccinations by source of information. The denominator for the table comprises children aged 12-23 months so that only children who are old enough to be fully vaccinated are included. In the top panel, the numerator includes all children who were vaccinated at any time before the survey according to the vaccination card or the mother's report. In the bottom panel, only those who were vaccinated before their first birthday, as recommended are included.

Overall, 84 per cent of children under five years received all the recommended vaccinations by their first birthday in Mbeere district. Coverage for BCG and DPT in the district was nearly universal. Initial immunization levels for DPT are high, but the proportion receiving subsequent doses declines meaning that there is considerable drop out from the immunization programme.

Table 6.1 (CH.1c): Vaccinations among children

Percentage of children aged 12-23 months immunized against childhood diseases at any time before the survey and before the first birthday, Mbeere District, 2008

Vaccinated at any time before the survey	Percentage of children who received:											Number of children aged 12-23 months
	BCG	DPT1	DPT2	DPT3	Polio0	Polio1	Polio2	Polio3	Measles	All*	None	
According to:												
Vaccination card	88.5	88.0	87.6	87.3	85.0	87.5	87.6	87.0	84.1	81.3	0.0	229
Mother's report	10.3	10.5	10.1	9.3	10.0	10.3	8.8	4.8	10.1	4.4	0.7	229
Either	98.8	98.5	97.7	96.7	94.9	97.9	96.4	91.8	94.1	85.8	0.7	229
Vaccinated by 12 months of age	98.8	97.6	97.5	96.7	94.9	97.9	96.4	91.8	93.0	83.7	0.7	229

Total number of 12-23 month olds vaccinated with BCG, (OPV3, DPT3, Measles, HepB, or HiB) before 12 months, as validated by card or mother's recall. To estimate the number of children without a card to have received vaccine before 1st birthday the proportion of vaccinations given during the first year of life is assumed to be the same as for the proportion of children with a card that received the vaccine before 1st birthday.

*Children who received 'all' vaccinations are those who have received 3 doses of DPT, 3 doses of Polio (excluding Polio 0), BCG, and Measles.

Similarly, polio vaccination by age 12 months declined from 98 per cent for Polio 1 to 96 and 92 per cent for the second and third doses, respectively. Measles vaccination was received by 93 per cent of children under five years in the district, which is one of the highest levels in the province.

Figure 6.1: Percentage of children aged 12-23 months who received the recommended vaccinations by 12 months, MICS Mbeere district, 2008

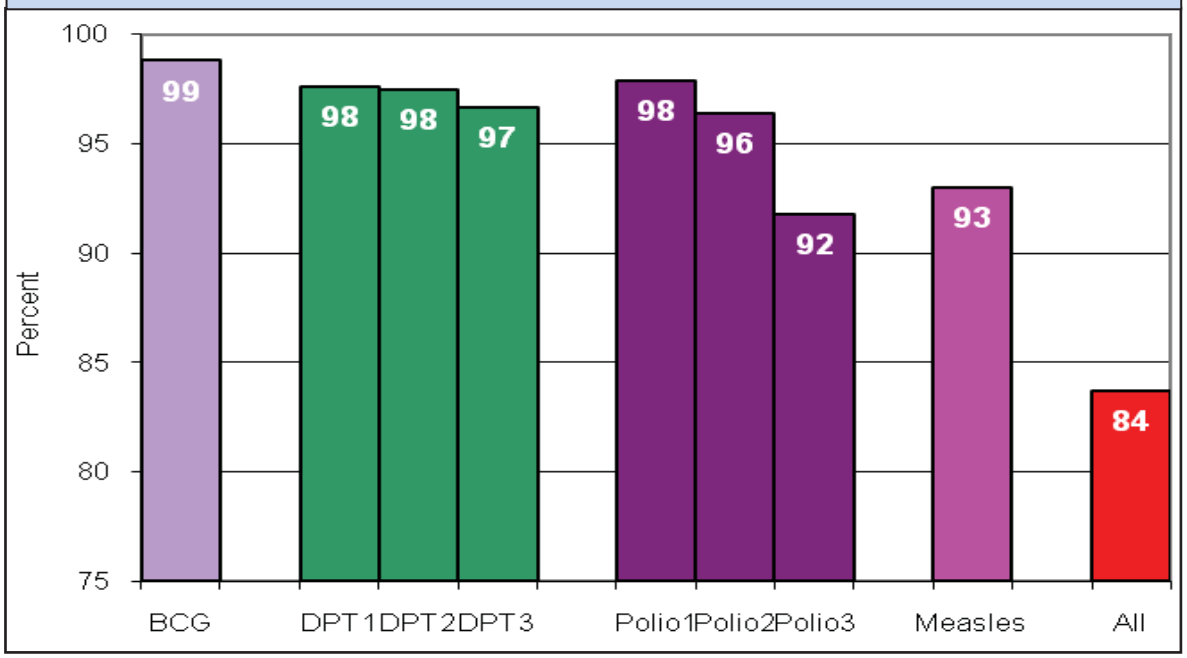


Table 6.2 shows vaccination coverage rates among children aged 12-23 months by background characteristics. A high proportion of children under five years (89 per cent) had health cards. If the child did not have a card, the mother was asked to recall whether or not the child had received each of the vaccinations and, for DPT and Polio, how many vaccinations they received. The table shows the proportion of children receiving vaccinations at any time up to the date of the survey, and is based on information from both the vaccination cards and mother's/caretaker's reports.

Mbeere district had the highest full immunisation rate in the province. In the district, 84 per cent of children aged 12-23 months were fully vaccinated (i.e., received BCG, 3 doses of DPT, 3 doses of Polio and measles vaccines) by the time they turned one year old. However, immunization coverage was generally lower for male children (84 per cent) compared to female children (87 per cent).

Table 6.2 (CH.2): Vaccinations by background characteristics

Percentage of children aged 12-23 months currently vaccinated against childhood diseases, Mbeere District, 2008

	Percentage of children who received:												
Characteristic	BCG	DPT1	DPT2	DPT3	Polio0	Polio1	Polio2	Polio3	Measles	All	None	Per cent with health card	Number of children aged 12-23 months
Sex													
Male	99.5	98.4	99.2	97.8	92.7	97.5	97.1	93.7	92.2	84.1	0.0	86.7	104
Female	98.2	98.6	96.5	95.7	96.8	98.2	95.7	90.2	95.8	87.2	1.4	91.6	124
Mother's education													
None	100	100	92.8	92.8	100	100	92.8	85.6	93.0	85.6	0.0	83.3	19
Primary	98.3	98.4	97.9	96.7	92.8	97.5	96.5	91.6	93.2	84.6	1.0	88.8	162
Secondary +	100	98.1	99.1	98.2	100	98.1	97.3	94.8	97.7	89.6	0.0	93.7	47
Wealth index													
Low	98.9	96.5	95.9	93.3	93.5	95.7	94.7	89.4	90.0	80.3	1.1	90.3	73
Medium	98.1	99.1	99.1	98.2	93.0	99.1	97.4	93.4	96.6	90.4	0.9	88.0	98
High	100	100	97.6	98.4	100	98.5	96.7	92.0	95.2	84.8	0.0	90.4	57
Total	**98.8**	**98.5**	**97.7**	**96.7**	**94.9**	**97.9**	**96.4**	**91.8**	**94.1**	**85.8**	**0.7**	**89.3**	**229**

Note: The calculation is the same as the top panel of Table 6.1 (i.e., the child's age at vaccination is not taken into account). Children who were vaccinated at any time before the survey are included in the numerator.

6.2 Tetanus Toxoid

One of the MDGs is to reduce by three quarters the maternal mortality ratio (MMR), with one strategy being to eliminate maternal tetanus. Another goal is to reduce the incidence of neonatal tetanus to less than 1 case of neonatal tetanus per 1,000 live births. A World Fit for Children goal is to eliminate maternal and neonatal tetanus by 2005.

Prevention of maternal and neonatal tetanus requires that all pregnant women receive at least two doses of tetanus toxoid vaccine. However, if women have not received two doses of the vaccine during pregnancy, they (and their newborn) are also considered to be protected if the following conditions are met:

- Received at least two doses of tetanus toxoid vaccine, the last within the last 3 years;
- Received at least 3 doses, the last within the last 5 years;
- Received at least 4 doses, the last within the last 10 years; and
- Received at least 5 doses during lifetime.

Table 6.3 shows the protection status from tetanus of women who had a live birth within the last 12 months. Overall, 70 per cent of women who had a birth during the two years preceding the survey had adequate protection against tetanus. Total coverage of tetanus was found to increase with increasing levels of education. Women from high wealth index households were more likely to have tetanus toxoid (76 per cent) than those from low and medium wealth index categories (68 per cent).

Table 6.3 (CH.3): Neonatal tetanus protection

Percentage of mothers with a birth in the last 12 months protected against neonatal tetanus, Mbeere District, 2008

Characteristic	Percentage of mothers with a birth in the last 12 months who: Received at least 2 doses during last pregnancy	Received at least 2 doses, the last within prior 3 years	Protected against tetanus*	Number of mothers
Age				
15-19	(*)	(*)	(*)	12
20.-24	64.7	4.8	69.5	97
25-29	63.5	12.9	76.4	78
30-34	60.1	13.8	73.9	53
35-39	47.4	11.4	59.7	73
Education				
None	(*)	(*)	(*)	17
Primary	56.8	9.0	66.1	235
Secondary +	75.3	10.3	85.6	62
Wealth index				
Low	58.7	9.2	67.9	92
Medium	56.5	10.6	67.6	138
High	66.9	8.7	75.6	84
Total	**59.9**	**9.7**	**69.8**	**314**

Tetanus toxoid injections are given to women during pregnancy to protect infants from neonatal tetanus, a major cause of infant death that is due primarily to unsanitary conditions during childbirth. Two doses of tetanus toxoid during pregnancy offer full protection. However, if a woman was vaccinated during a previous pregnancy, she may only need a booster to give full protection. Five doses are thought to provide lifetime protection.
( ): Based on un-weighted cases. 25-50
(*): Based on less than 25 un-weighted cases.

6.3 Oral Rehydration Treatment

Diarrhoea is one of the leading causes of death among children under five worldwide. Most diarrhoea-related deaths in children are due to dehydration from loss of large quantities of water and electrolytes from the body in liquid stools. Management of diarrhoea – either through oral Rehydration salts (ORS) or a recommended home fluid (RHF) - can prevent many of these deaths. Preventing dehydration and malnutrition by increasing fluid intake and continuing to feed the child are also important strategies for managing diarrhoea.

A World Fit for Children goal is to reduce by one half deaths due to diarrhoea among children under five by 2010; and 2) reduce by two thirds the mortality rate among children under five by 2015 compared to 1990 (Millennium Development Goals). In addition, the World Fit for Children calls for a reduction in the incidence of diarrhoea by 25 per cent.

The indicators are:

- Prevalence of diarrhoea
- Oral Rehydration therapy (ORT)
- Home management of diarrhoea
- ORT or increased fluids *AND* continued feeding

In the MICS 2008 questionnaire, mothers (or caretakers) were asked to report whether their child had diarrhoea in the two weeks before the survey. If yes, the mother was asked a series of questions about what the child had to drink and eat during the episode and whether this was more or less than the child usually ate and drank.

Table 6.4 shows ORS treatment for children with diarrhoea in the last two weeks before they survey, by background characteristics. About 14 per cent of children below five years had diarrhoea in the two weeks preceding the survey in Mbeere district. The peak of diarrhoea prevalence occurred in the weaning period, among children aged 6-23 months.

Table 6.4 also shows the percentage of children who received various types of recommended home liquids during the episode of diarrhoea. Since mothers were able to name more than one type of liquid, the percentage does not necessarily add to 100. About 21 per cent received fluids from ORS packets; 20 per cent received pre-packaged ORS fluids; and about 24 per cent received recommended homemade fluids. Overall, 53 per cent of the children with diarrhoea received one or more of the recommended treatments i.e., oral rehydration treatment (ORT) for diarrhoea, while 47 per cent received no treatment at all.

Table 6.4 (CH.4): Oral rehydration treatment

Percentage of children aged 0-59 months with diarrhoea in the last two weeks and treatment with oral rehydration solution (ORS) or other oral rehydration treatment (ORT), Mbeere District, 2008

Characteristic	Had diarrhoea in last two weeks	Number of children aged 0-59 months	Children with diarrhoea who received: Fluid from ORS packet	Recommended homemade fluid	Pre-packaged ORS fluid	No treatment	ORT Use Rate	Number of children aged 0-59 months with diarrhoea
Sex								
Male	15.0	555	(25.8)	(22.5)	(18.9)	(47.2)	(52.8)	83
Female	12.9	537	(15.9)	(24.9)	(20.5)	(46.7)	(53.3)	69
Age								
<6 months	10.7	116	(*)	(*)	(*)	(*)	(*)	12
6-11 months	24.6	91	(35.9)	(18.7)	(19.9)	(42.5)	(57.5)	22
12-23 months	23.9	229	15.1	29.8	23.4	42.0	58.0	55
24-35 months	16.8	229	(24.7)	(19.8)	(22.5)	(45.1)	(54.9)	39
36-47 months	4.1	196	(*)	(*)	(*)	(*)	(*)	8
48-59 months	7.1	232	(*)	(*)	(*)	(*)	(*)	17
Mother's education								
None	6.0	90	(*)	(*)	(*)	(*)	(*)	5
Primary	15.2	780	22.0	21.4	21.0	46.5	53.5	119
Secondary +	12.8	222	(22.6)	(37.4)	(14.9)	(41.8)	(58.2)	28
Wealth index								
Low	11.9	299	(14.5)	(22.1)	(25.2)	(47.0)	(53.0)	36
Medium	15.0	471	18.4	26.1	15.7	45.7	54.3	71
High	14.3	322	31.0	20.9	21.3	48.9	51.1	46
Total	**14.0**	**1092**	**21.3**	**23.6**	**19.6**	**47.0**	**53.0**	**153**

Note: The percentage receiving various treatments will not add to 100 since some children may have received more than one type of treatment. The ORT use rate includes those who received oral rehydration salts from a packet or any appropriate household solution or pre-packaged ORS fluid.

( ): Based on un-weighted cases. 25-50
(*): Based on less than 25 un-weighted cases

Table 6.5 provides information on home management of diarrhoea by background characteristics. Among children under five who had diarrhoea during the two weeks preceding the survey, only 14 percent received appropriate home management of the illness. This includes those who received increased fluids and food intake.

Children from low wealth index households were less likely to receive ORT or increased fluids and continued feeding during diarrhoea.

Table 6.5 (CH.5): Home management of diarrhoea

Percentage of children aged 0-59 months with diarrhoea in the last two weeks who took increased fluids and continued to feed during the episode, Mbeere District, 2008

Characteristic	Had diarrhoea in last two weeks	Number of children aged 0-59 months	Children with diarrhoea who: Drank more	Drank the same or less	Ate somewhat less, same or more	Ate much less or none	Home management of diarrhoea	Received ORT or increased fluids and continued feeding	Number of children aged 0-59 months with diarrhoea
Sex									
Male	15.0	555	34.3	65.7	49.1	50.9	17.8	30.0	83
Female	12.9	537	36.7	62.5	35.3	64.0	8.6	18.1	69
Age									
0-11 months	14.9	182	(30.2)	(67.9)	(48.5)	(49.6)	(14.8)	(25.9)	27
12-23 months	24.5	235	30.1	69.9	25.5	74.5	6.5	22.5	57
24-35 months	18.3	226	(41.8)	(58.2)	(63.6)	(36.4)	(24.1)	(37.8)	41
36-47 months	4.1	196	(*)	(*)	(*)	(*)	(*)	(*)	8
48-59 months	7.2	228	(*)	(*)	(*)	(*)	(*)	(*)	17
Mother's education									
None	6.0	90	(*)	(*)	(*)	(*)	(*)	(*)	5
Primary	15.2	780	36.6	62.9	46.0	53.5	15.3	26.8	119
Secondary +	12.8	222	(31.5)	(68.5)	(24.0)	(76.0)	(6.7)	(16.9)	28
Wealth index									
Low	11.9	299	(36.9)	(63.1)	(30.9)	(69.1)	(14.7)	(20.9)	36
Medium	15.0	471	37.3	61.9	44.9	54.4	14.0	26.4	71
High	14.3	322	31.4	68.6	48.8	51.2	12.2	24.5	46
Total	**14.0**	**1092**	**35.4**	**64.2**	**42.8**	**56.8**	**13.6**	**24.6**	**153**

( ): Based on un-weighted cases. 25-50
(*): Based on less than 25 un-weighted cases

6.4 Care Seeking and Antibiotic Treatment of Pneumonia

Pneumonia is one of the acute respiratory infections that are common causes of death in children below five years of age. The use of antibiotics in children with suspected pneumonia is a key intervention. A World Fit for Children goal is to reduce by one-third the deaths due to acute respiratory infections.

Children with suspected pneumonia are those who had an illness with a cough accompanied by rapid or difficult breathing and whose symptoms were NOT due to a problem in the chest and a blocked nose. The indicators are:

- Prevalence of suspected pneumonia
- Care seeking for suspected pneumonia
- Antibiotic treatment for suspected pneumonia
- Knowledge of the danger signs of pneumonia

Table 6.6 presents the prevalence of suspected pneumonia and, if care was sought outside the home, the site of care. About 13 per cent of children aged 0-59 months were reported to have had symptoms of pneumonia during the two weeks preceding the survey, but only 64 per cent were taken to an appropriate health service provider.

Among children taken to a health service provider, 57 per cent were taken to a government facility or service was provided by a government health worker, while six per cent received services from the private sector. Children from high wealth index households were more likely to receive care from an appropriate health service provider compared with children from lower wealth index households.

Table 6.6 (CH.6): Care seeking for suspected pneumonia

Percentage of children aged 0-59 months with suspected pneumonia in the last two weeks taken to a health provider, Mbeere District, 2008

			Children with suspected pneumonia who were taken to:								
			Public sources			Private sources			Other source		
Characteristic	Had acute respiratory infection[1]	Number of children aged 0-59 months	Govt. Hospital	Govt. health centre	Other public*	Private hospital/ clinic	Private physician	Other private	Shop	Any appropriate provider	Number of children aged 0-59 months with suspected pneumonia
Sex											
Male	14.2	558	12.7	44.3	0.0	6.3	0.0	1.3	0.0	65.8	79
Female	12.0	534	21.9	34.4	1.6	3.1	1.6	0.0	1.6	62.5	64
Age											
0-11 months	12.8	227	(20.7)	(37.9)	(0.0)	(10.3)	(0.0)	(0.0)	(0.0)	(72.4)	29
12-23 months	16.5	260	(18.6)	(44.2)	(0.0)	(2.3)	(0.0)	(2.3)	(0.0)	(67.4)	43
24-35 months	13.0	230	(10.0)	(56.7)	(3.3)	(6.7)	(0.0)	(0.0)	(0.0)	(76.7)	30
36-47 months	12.2	181	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	22
48-59 months	9.9	192	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	19
Mother's education											
None	6.1	82	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	5
Primary	14.0	786	13.6	36.4	0.9	6.4	0.9	0.0	0.9	59.1	110
Secondary +	12.5	224	(28.6)	(50.0)	(0.0)	(0.0)	(0.0)	(3.6)	(0.0)	(82.1)	28
Wealth index											
Low	14.4	319	(6.5)	(34.8)	(2.2)	(4.3)	(0.0)	(0.0)	(0.0)	(50.0)	46
Medium	11.8	473	19.6	39.3	0.0	5.4	1.8	0.0	1.8	66.1	56
High	13.7	300	(24.4)	(46.3)	(0.0)	(4.9)	(0.0)	(2.4)	(0.0)	(78.0)	41
Total	**13.1**	**1092**	**16.8**	**39.9**	**0.7**	**4.9**	**0.7**	**0.7**	**0.7**	**64.3**	**143**

* Includes village health worker or mobile/outreach clinic.

Note: The percentage taken to various providers may not add to 100 since some children may have been taken to see more than one type of provider.

( ): Based on un-weighted cases. 25-50

(*): Based on less than 25 un-weighted cases

Table 6.7 (Ch.7a) presents results on use of antibiotics for the treatment of suspected pneumonia among children below five years by sex, age, and socioeconomic factors. In Mbeere district, 54 per cent of children below five years who had suspected pneumonia received antibiotic treatment during the two weeks prior to the survey. The likelihood of a child being treated with antibiotics for suspected pneumonia was higher for children from high wealth index households.

Table 6.7 (CH.7a): Antibiotic treatment for pneumonia

Percentage of children aged 0-59 months with suspected pneumonia who received antibiotic treatment, Mbeere District, 2008

Characteristic	Percentage of children aged 0-59 months with suspected pneumonia who received antibiotics in the last two weeks	Number of children aged 0-59 months with suspected Pneumonia in the two weeks prior to the survey
Sex		
Male	51.4	82
Female	56.5	73
Age		
0-11 months	(56.1)	24
12-23 months	(62.4)	40
24-35 months	(64.9)	39
36-47 months	(*)	26
48-59 months	(*)	25
Mother's education		
None	(*)	5
Primary	50.6	123
Secondary +	(67)	27
Wealth index		
Low	(33.2)	49
Medium	58.6	60
High	(69.7)	46
Total	**53.8**	**155**

Issues related to knowledge of danger signs of pneumonia are presented in Table 6.8 (CH.7b). Mother's knowledge of the danger signs is an important determinant of care-seeking behaviour. Overall, only 11 per cent of women recognised that fast and difficult breathing in the child are the two danger signs of pneumonia. The most commonly identified symptom for taking a child to a health facility by the mother/caretaker was developing fever (86 per cent). Fifteen per cent of mothers/caretakers identified fast breathing and 19 per cent of mothers identified difficult breathing as symptoms for taking children immediately to a health care provider.

Table 6.8 (CH.7b): Knowledge of the two danger signs of pneumonia

Percentage of mothers/caretakers of children aged 0-59 months by knowledge of types of symptoms for taking a child immediately to a health facility, and percentage of mothers/caretakers who recognize fast and difficult breathing as signs for seeking care immediately, Mbeere District, 2008

Characteristic	Percentage of mothers/caretakers of children aged 0-59 months who think that a child should be taken immediately to a health facility if the child:								Mothers/ caretakers who recognize the two danger signs of pneumonia*	Number of mothers/ caretakers of children aged 0-59 months
	Is not able to drink or breast-feed	Becomes sicker	Develops a fever	Has fast breathing	Has difficulty breathing	Has blood in stool	Is drinking poorly	Has other symptoms		
Mother's education										
None	18.9	20.5	88.3	18.4	21.2	9.8	18.4	49.2	14.4	90
Primary	20.3	24.1	84.9	14.4	18.5	12.2	23.5	57.2	9.8	780
Secondary +	23.2	19.7	87.3	13.7	21.6	12.9	20.6	63.9	11.9	222
Wealth index										
Low	25.3	22.0	82.0	14.9	20.8	13.9	26.5	52.6	12.5	299
Medium	19.2	24.8	85.0	17.6	18.6	13.2	21.0	59.6	11.4	471
High	18.8	21.0	90.1	9.8	19.2	8.9	20.9	60.5	7.9	322
Total	**20.7**	**22.9**	**85.7**	**14.6**	**19.4**	**12.1**	**22.5**	**57.9**	**10.6**	**1092**

* Percentage of mothers/caretakers who state fast and difficult breathing as signs for taking a child to a health facility immediately

Note: The percentage may not add to 100 since some mothers/caretakers may have indicated more than one symptom.

6.5 Solid Fuel Use

More than 3 billion people around the world rely on solid fuels (biomass and coal) for their basic energy needs, including cooking and heating. Cooking and heating with solid fuels leads to high levels of indoor smoke, a complex mix of health-damaging pollutants. The main problem with the use of solid fuels is products of incomplete combustion, including carbon monoxide (CO), polyaromatic hydrocarbons, sulphur dioxide (SO2), and other toxic elements. Use of solid fuels increases the risks of acute respiratory illness, pneumonia, chronic obstructive lung disease, cancer, and possibly tuberculosis, low birth weight, cataracts, and asthma. The primary indicator is the proportion of the population using solid fuels as the primary source of domestic energy for cooking.

Information regarding solid fuel use by background characteristics is shown in Table 6.9(CH.8). Wood fuel is the most common source of fuel used in Mbeere district (used by 91 per cent of households). Less than ten per cent of the households use charcoal for cooking. Overall, use of solid fuels for cooking was near universal in Mbeere district, with over 98 per cent of the households reportedly using them for cooking.

Table 6.9 (CH.8): Solid fuel use

Percentage distribution of households according to type of cooking fuel, and percentage of households using solid fuels for cooking, Mbeere district, 2008

Characteristic	Percentage of households using: Liquefied Petroleum Gas	Natural Gas	Kerosene	Charcoal	Wood	Straw, shrubs, grass	Total	Solid fuels for cooking *	Number of house-holds
Education of household head									
None	1.4	0.3	3.8	9.2	85.3	0.0	100.0	94.5	232
Primary	0.0	0.0	0.6	6.3	92.7	0.3	100.0	99.4	686
Secondary +	0.0	0.0	0.9	9.4	89.8	0.0	100.0	99.1	211
Wealth index									
Low	0.0	0.0	0.0	0.4	99.6	0.0	100.0	100.0	333
Medium	0.0	0.0	0.1	2.2	97.7	0.0	100.0	99.9	439
High	0.9	0.2	4.1	20.6	73.6	0.6	100.0	94.8	357
Total	**0.3**	**0.1**	**1.3**	**7.5**	**90.6**	**0.2**	**100.0**	**98.3**	**1129**

6.6 Malaria

Malaria is one of the leading causes of death among children under age five. It also contributes to anaemia in children and is a common cause of school absenteeism. Preventive measures, especially the use of mosquito nets treated with insecticide (ITNs), can dramatically reduce malaria mortality rates among children. In areas where malaria is common, international recommendations suggest treating any fever in children as if it were malaria and immediately giving the child a full course of recommended anti-malarial tablets. Children with severe malaria symptoms, such as fever or convulsions should be taken to a health facility. Also, children recovering from malaria should be given extra liquids and food and, for younger children breastfeeding should be continued.

The questionnaire includes questions on the availability and use of bed nets, both at household level and among children under five years of age, as well as anti-malarial treatment and intermittent preventive treatment of malaria for pregnant women. This information is presented in Table 6.10.

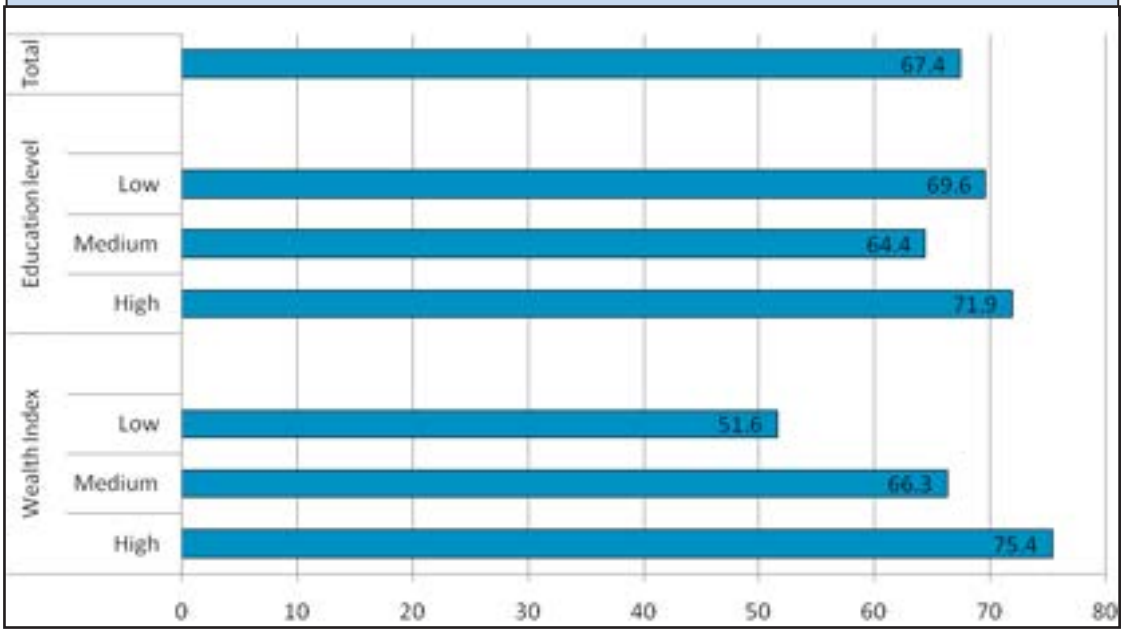
The survey results indicate that 67 per cent of households in Mbeere district have at least one insecticide treated net (ITN). Each household has an average of 2.3 mosquito nets. Differentials by household characteristics indicate a positive relationship between the ownership of mosquito nets and the household wealth index (see Figure 6.2).

Table 6.10 (CH.10): Availability of insecticide treated nets

Percentage of households with at least one insecticide treated net (ITN),MICS Mbeere District, 2008

Characteristic	Percentage of households with: At least one mosquito net	Two or more mosquito nets	At least one insecticide treated net (ITN)*	Mean number of mosquito nets per household	Number of households
Education of household head					
None	69.6	44.8	69.6	2.4	231
Primary	64.4	37.8	64.1	2.2	626
Secondary +	71.9	50	71.9	2.7	280
Wealth index					
Low	51.6	23.6	51.6	1.9	229
Medium	66.3	42.4	66.2	2.2	410
High	75.4	50.8	75.1	2.7	503
Total	**67.4**	**42.3**	**67.2**	**2.3**	**1141**

Figure 6.2: Households with at least one insecticide treated nets, MICS Mbeere district, 2008



Information was collected from mothers on the number of children who slept under a bed net the night before the survey and these results are summarized in Table 6.11 (CH.11). While 67 per cent of the households owned insecticide treated nets, 66 per cent of children under the age of five slept under a mosquito net the night prior to the survey. Children from high wealth index households were more likely to sleep under a mosquito net than those from low wealth index households (72 per cent for those from high wealth households versus only 50 per cent among those from low wealth index households).

Table 6.11 (CH.11): Children sleeping under bed nets

Percentage of children aged 0-59 months who slept under a bed net during the previous night, Mbeere District, 2008

Characteristic	Percentage of children who: Slept under a bed net	Slept under an insecticide treated net	Slept under an untreated net	Don't know if slept under a net	Did not sleep under a bed net	Number of children aged 0-59 months
Sex						
Male	68.2	64.8	3.4	0.6	31.2	555
Female	63.8	61.6	2.2	0.2	36.0	537
Age						
0-11 months	69.3	66.8	2.5	0.0	30.7	206
12-23 months	66.6	63.6	3.0	0.0	33.4	229
24-35 months	70.8	66.7	4.1	0.0	29.2	229
36-47 months	58.9	56.3	2.6	0.4	40.7	196
48-59 months	63.3	61.6	1.7	1.4	35.3	228
Wealth index						
Low	49.7	47.2	2.5	0.0	50.3	299
Medium	72.6	69.8	2.7	0.2	27.3	471
High	71.7	68.5	3.1	1.0	27.4	322
Total	**66.0**	**63.2**	**2.8**	**0.4**	**33.6**	**1092**

Questions on the prevalence and treatment of fever were asked for all children under age five. Table 6.12 (CH.12) shows information on treatment of children with anti-malarial drugs. Twenty one per cent of children below five years were ill with fever in the two weeks prior to the survey. Fever prevalence was lowest for children aged 48-59 months (17 per cent) and peaked at age 12-23 months (28 per cent).

Mothers were asked to report all of the medicines given to a child to treat the fever, including both medicines given at home and medicines given or prescribed at a health facility. Overall, 62 per cent of children with fever in the two weeks before the survey were treated with an “appropriate” anti-malarial drug; with 47 per cent receiving anti-malarial drugs within 24 hours of onset of symptoms. Children from high wealth index households were more likely to receive an appropriate anti-malarial drug and also more likely to receive them within 24 hours of onset of symptoms, compared to their other counterparts.

Table 6.12 (CH.12): Treatment of children with anti-malarial drugs

Percentage of children aged 0-59 months who were ill with fever in the last two weeks and received anti-malarial drugs, Mbeere District, 2008

			Children with a fever in the last two weeks who were treated with:													
			Anti-malarials:							Other medications:						
Characteristic	Had a fever in last two weeks	Number of children aged 0-59 months	SP/ Fansidar	Chloro-quine	Amodia quine	Quinine	Artem-isinin based comb-inations	Other anti-malarial	Any appropriate anti-malarial drug	Parac-etamol/ Panadol/ Acetamin ophen	Aspirin	Ibup-rofen	Other	Don't know	Any appropriate anti-malarial drug within 24 hours of onset of symptoms*	Number of children with fever in last two weeks
Sex																
Male	23.3	555	9.3	1.3	26.4	9.1	18.0	4.4	62.7	59.1	4.2	0.0	21.2	3.1	49.4	129
Female	18.2	537	10.5	0.9	26.1	8.6	11.9	5.2	61.4	47.5	2.2	0.8	24.1	7.0	43.4	98
Age																
0-11 months	19.2	206	(7.6)	(2.3)	(16.5)	(9.4)	(11.7)	(8.1)	(53.4)	(49.4)	(2.0)	(0.0)	(21.5)	(4.4)	(43.6)	40
12-23 months	28.4	229	14.6	2.6	21.9	10.8	12.4	2.6	58.4	44.4	1.3	1.3	17.4	4.4	40.7	65
24-35 months	20.2	229	(0.9)	(0.0)	(37.3)	(3.5)	(18.4)	(10.9)	(67.4)	(61.4)	(1.3)	(0.0)	919.0)	(0.0)	(51.8)	46
36-47 months	19.7	196	(14.9)	(0.0)	(31.8)	(18.1)	(8.7)	(2.1)	(69.0)	57.5	(12.1)	(0.0)	(20.0)	(3.5)	(54.3)	39
48-59 months	16.6	228	(9.9)	(0.0)	(25.0)	(2.0)	(27.4)	(0.0)	(64.3)	(63.4)	(2.0)	(0.0)	(38.8)	(12.9)	(47.0)	38
Mother's education																
None	24.0	90	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	22
Primary	19.1	780	8.4	1.7	29.5	7.1	14.7	4.0	62.4	52.1	5.2	0.0	20.2	4.2	47.1	149
Secondary +	25.5	222	15.0	0.0	19.9	9.0	12.0	8.4	61.4	57.0	0.0	1.4	25.1	2.4	45.8	57
Wealth index																
Low	20.3	299	10.4	0.0	14.4	6.5	15.8	5.9	52.9	37.5	3.3	0.0	15.1	5.1	34.2	61
Medium	19.0	471	10.6	2.9	28.0	12.0	13.6	4.6	64.2	55.6	2.6	0.0	23.6	5.1	50.2	90
High	24.0	322	8.6	0.0	33.7	7.0	17.0	3.9	67.0	65.5	4.3	1.1	27.0	4.1	52.8	77
Total	**20.8**	**1092**	**9.9**	**1.1**	**26.3**	**8.8**	**15.4**	**4.7**	**62.1**	**54.1**	**3.4**	**0.4**	**22.5**	**4.8**	**46.8**	**227**

* The percentage given various drugs may not add to 100 since some children may have been given more than one type of drug.
(*) Based on less than 25 un-weighted figures and has been suppressed.
( ) Based on 25-50 un-weighted figures

"Appropriate" anti-malarial drugs include chloroquine, SP/fansidar, artimisinin combination drugs, etc. Majority of children received amodiaquine. In addition, the most common 'other medication' given to children was paracetamol, received by 54 per cent of children.

Pregnant women living in places where malaria is highly prevalent are four times more likely than other adults to get malaria and twice as likely to die of the disease. Once infected, pregnant women risk becoming aneamic, or having a premature delivery and stillbirth. Their babies are also likely to have low birth weights, which makes the newborns unlikely to survive their first year of life. For this reason, steps are taken to protect pregnant women by distributing insecticide-treated mosquito nets and treatment during antenatal check-ups with drugs that prevent malaria infection (intermittent preventive treatment or IPT). During the survey, women were asked about medicine they received in their last pregnancy during the 2 years preceding the survey. Women were considered to have received intermittent preventive treatment if they had received at least two doses of SP/Fansidar during pregnancy. Results regarding intermittent preventive treatment for malaria in pregnant women who gave birth in the two years preceding the survey are presented in Table 6.13 (CH.13).

Table 6.13 (CH.13): Intermittent preventive treatment for malaria

Percentage of women aged 15-49 years who gave birth during the two years preceding the survey and received intermittent preventive therapy (IPT) for malaria during pregnancy, Mbeere District, 2008

Characteristic	Percentage of pregnant women who took:						Number of women who gave birth two years prior to the survey
	Medicine to prevent malaria during pregnancy	SP/Fansidar only one time	SP/Fansidar two or more times	Chloroquine	Other medicines	Don't know	
Education							
None	(*)	(*)	(*)	(*)	(*)	(*)	17
Primary	77.4	34.7	32.1	2.0	2.8	5.0	235
Secondary +	86.0	29.6	42.5	0.0	2.6	9.9	62
Wealth index							
Low	76.2	34.5	29.7	3.7	1.4	5.5	92
Medium	79.4	32.1	36.5	0.9	3.4	5.9	138
High	80.1	33.2	34.6	0.7	4.0	6.9	84
Total	**78.7**	**33.1**	**34.0**	**1.7**	**3.0**	**6.1**	**314**

(*) Based on less than 25 un-weighted figures and has been suppressed.

Among mothers who delivered a child during the two years preceding the survey, 79 per cent received medicine to prevent malaria during pregnancy. Over one third of the women (34 per cent) received medication more than two times during their pregnancy. Women with higher education and those from wealthier households were more likely to receive intermittent preventive treatment for malaria.

7.1 Water

Safe drinking water is a basic necessity for good health. Unsafe drinking water can be a significant carrier of diseases such as trachoma, cholera, typhoid, and schistosomiasis. Drinking water can also be tainted with chemical, physical and radiological contaminants which carry harmful effects on human health. In addition to its association with diseases, access to drinking water may be particularly important for women and children who bear the primary responsibility for carrying water, often for long distances.

The MDG target is to reduce by half, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. A World Fit for Children goal calls for a reduction in the proportion of households without access to hygienic sanitation facilities and affordable and safe drinking water by at least one-third.

The indicators used in MICS are as follows:

Water

- Use of improved drinking water sources
- Use of adequate water treatment method
- Time to source of drinking water
- Person collecting drinking water

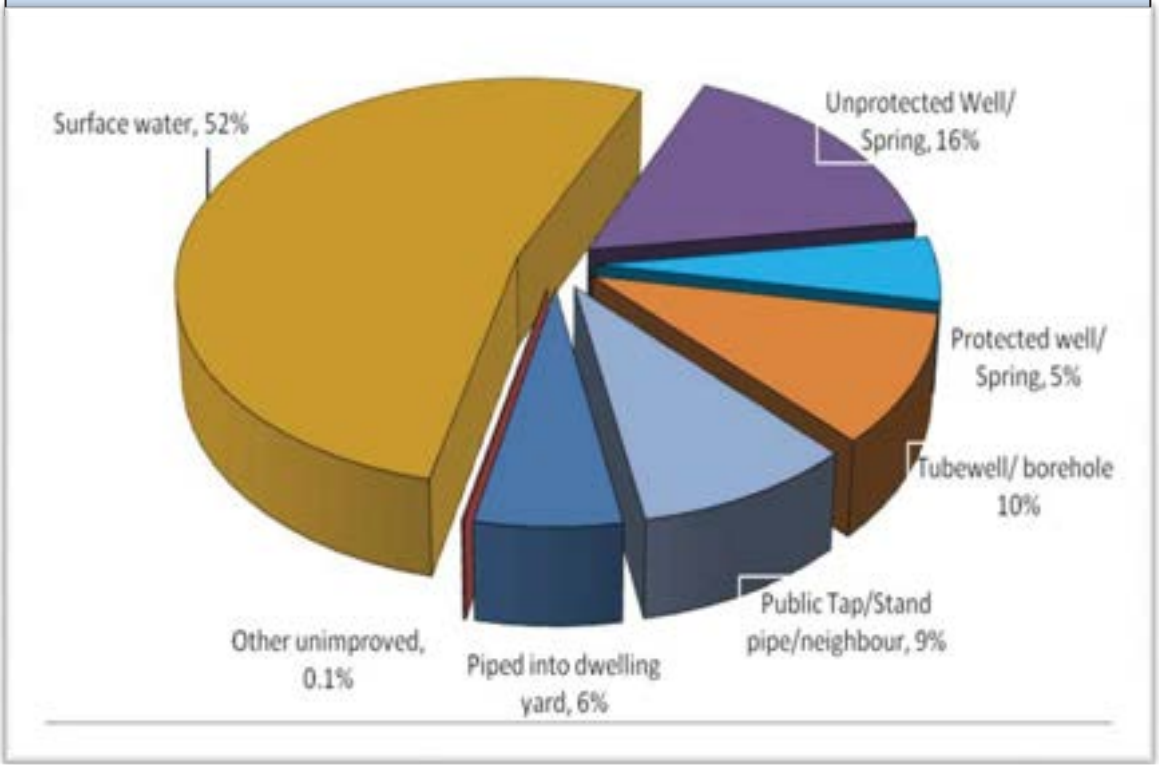
Sanitation

- Use of improved sanitation facilities
- Sanitary disposal of child's faeces

The population classified as using improved sources of drinking water was defined using the following types of supply: piped water (into dwelling, yard or plot), public tap/standpipe, tube well/borehole, protected well, protected spring, and rain water collection. Bottled water was considered as an improved water source only if the household was using an improved water source for other purposes, such as hand washing and cooking.

The distribution of the population by source of drinking water is shown in Table 7.1 (EN .1) and Figure 7.1. Majority of the households use surface water; while other households rely on water from unprotected well/spring, tube well/borehole and public stand pipe.

Figure 7.1: Percentage distributions of household members by source of drinking water, MICS Mbeere district, 2008



Overall, about 28 per cent of the population was using an improved source of drinking water in Mbeere district (Table 7.1). The proportion of the population using an improved source of drinking water increases with increasing levels of the household wealth index.

Table 7.1 (EN.1): Use of improved water sources

Percentage distribution of household population according to main source of drinking water and percentage of household population using improved drinking water sources, Mbeere District, 2008

	Main source of drinking water															
	Improved sources							Unimproved sources								
Characteristic	Piped into dwelling	Piped into yard/ plot	Public tap/ stand-pipe	Piped water from neighbour	Tube-well/ bore-hole	Protected well	Protected spring	Unprotected well	Unprotected spring	Tanker truck	Cart with tank/ drum	Surface water	Other	Total	Improved source of drinking water	Number of household members
Education of household head																
None	6.1	5.4	2.7	5.0	2.5	4.5	0.0	12.5	1.4	0.5	1.5	51.2	0.2	100.0	26.2	782
Primary	1.2	2.3	7.8	2.1	7.3	4.8	0.1	13.6	2.9	0.0	1.2	55.3	0.2	100.0	24.5	3199
Secondary +	6.5	4.8	6.5	3.8	10.4	7.7	0.3	9.0	5.1	0.0	0.0	43.2	0.0	100.0	38.6	954
Wealth index																
Low	0.0	0.0	3.0	2.2	3.9	2.3	0.0	11.8	0.8	0.0	0.4	74.5	0.3	100.0	9.2	1444
Medium	1.3	2.5	5.8	4.0	11.3	4.6	0.3	14.7	3.8	0.0	1.3	49.5	0.0	100.0	26.7	1970
High	8.2	7.5	11.6	2.1	4.7	9.2	0.0	10.4	4.3	0.3	1.3	35	0.1	100.0	46.0	1521
Total	**3.0**	**3.3**	**6.8**	**2.9**	**7.1**	**5.3**	**0.1**	**12.5**	**3.1**	**0.1**	**1.0**	**52.3**	**0.1**	**100.0**	**27.5**	**4935**

Households were asked of ways they may be treating water at home to make it safer to drink such as: boiling, adding bleach or chlorine, using a water filter, and using solar disinfection were considered as proper treatment of drinking water. Table 7.2 (EN .2) shows the percentage of household members using appropriate water treatment methods, separately for all households and for households using improved and unimproved drinking water sources.

Twenty nine per cent of people in Mbeere district used appropriately treated water for drinking. Over 22 per cent of households boil their drinking water, while nine per cent add chlorine to treat their drinking water.

Table 7.2 (EN.2): Household water treatment

Percentage distribution of household population according to drinking water treatment method used in the household, and percentage of household population that applied an appropriate water treatment method, Mbeere District, 2008

	Water treatment method used in the household					All drinking water sources		Improved drinking water sources		Unimproved drinking water sources	
Characteristic	None	Boil	Add bleach/ chlorine	Let it stand and settle	Other	Appropriate water treatment method	Number of household members	Appropriate water treatment method	Number of household members	Appropriate water treatment method:	Number of household members
Education of household head											
None	67.6	21.6	11.2	0.7	0.5	32.3	782	26.3	205	34.5	577
Primary	74.7	19.5	5.9	1.3	0.1	24.4	3199	25.3	784	24.1	2415
Secondary +	58.9	28.6	16.8	0.6	1.2	39.9	954	37.2	369	41.6	585
Wealth index											
Low	78.1	16.8	4.4	1.1	0.0	21.0	1444	16.8	133	21.4	1311
Medium	72.0	21.2	8.2	0.6	0.7	27.1	1970	19.7	525	29.8	1445
High	61.4	26.7	14.0	1.6	0.4	37.9	1521	37.7	700	38.0	821
Total	**70.6**	**21.6**	**8.9**	**1.1**	**0.4**	**28.6**	**4935**	**28.7**	**1358**	**28.6**	**3577**

Note that multiple response categories may be used and responses may total to more than 100 per cent.

A summary of the amount of time it takes to obtain water is presented in Table 7.3 (EN 2). Note that these results refer to one round trip from home to a drinking water source. Information on the number of trips made in one day was not collected. The table shows that majority of households in Mbeere district use up to 1 hour to fetch drinking water. Less than ten per cent (8.5 per cent) of the households have water available on the premises.

About 14 per cent of households spend less than 15 minutes to get water for use, but majority of households use up to 72 minutes (1 hour and 12 minutes) to get water from the nearest source back to their households.

Table 7.3 (EN.3): Time to source of water

Percentage distribution of households according to time to go to source of drinking water, get water and return, and mean time to source of drinking water, Mbeere District, 2008

	Time to source of drinking water							
Characteristic	Water on premises	Less than 15 minutes	15 minutes to less than 30 minutes	30 minutes to less than 1 hour	1 hour or more	Total	Mean time to source of drinking water*	Number of households
Education of household head								
None	13.8	15.8	7.6	21.3	41.4	100.0	85.6	232
Primary	5.2	13.3	14.7	22.1	44.7	100.0	69.4	686
Secondary +	13.3	12.4	10.5	16.1	47.6	100.0	67.1	211
Wealth index								
Low	0.6	10.9	9.0	23.0	56.6	100.0	88.8	333
Medium	5.2	13.9	15.7	22.3	42.8	100.0	68.1	439
High	19.8	16.0	11.8	17.0	35.4	100.0	58.7	357
Total	**8.5**	**13.7**	**12.5**	**20.8**	**44.6**	**100.0**	**72.1**	**1129**

*The mean time to source of drinking water is calculated based on those households that do not have water on the premises.

Details of the person who usually collected the water are presented in Table 7.4. For the majority of households (80 per cent), an adult female usually fetches water for the household when the source of drinking water is not on the premises. Adult men collect water in 27 per cent of cases; while a child under age 15 years collects water in 17 per cent of the cases. For situations where children fetch water for the household, an adult female will still accompany them in 13 per cent of the cases. However, in 16 per cent cases an adult female and an adult male member were responsible for collecting the drinking water. These findings reinforce the finding that women play an important role in water provision for the households.

Table 7.4 (EN.4): Person collecting water

Percentage distribution of households according to the person collecting drinking water used in the household, Mbeere District, 2008

Characteristic	Person collecting drinking water							Number of house holds
	Adult woman	Adult man	Female child under age 15	Male child under age 15	Adult woman and child	Adult man and child	Adult man and woman	
Education of household head								
None	73.6	28.7	6.4	4.6	8.2	3.4	17.0	232
Primary	82.9	26.4	10.9	9.0	14.8	5.7	15.3	686
Secondary +	75.7	26.1	8.3	5.1	11.8	6.2	15.1	211
Wealth index								
Low	93.8	22.0	12.9	10.7	17.4	5.7	17.1	333
Medium	83.6	25.2	7.7	7.7	11.8	4.5	14.9	439
High	61.5	33.4	8.5	3.8	10.1	6.1	15.0	357
Total	**79.7**	**26.8**	**9.5**	**7.3**	**12.9**	**5.3**	**15.6**	**1129**

*Total per cent may add to more than 100.0 due to multiple responses.

7.2 Sanitation

Inadequate disposal of human excreta and personal hygiene is associated with a range of diseases including diarrhoea and polio. Improved sanitation facilities for excreta disposal include: flush or pour flush to a piped sewer system, septic tank, or latrine; ventilated improved pit latrine, pit latrine with slab, and composting toilet. Information regarding sanitation by education of the household head and wealth index is shown in Table 7.5 (EN .5).

Thirty one per cent of households in Mbeere district are using improved sanitation facilities; the most common being the pit latrine with slab. The use of improved sanitation facilities is associated with household wealth index.

About six per cent of households have no sanitation facilities in the district, while 64 per cent are using unimproved sanitary facilities such as open pits.

Table 7.5 (EN.5): Use of sanitary means of excreta disposal

Percentage distribution of household population according to type of toilet facility used by the household, and the percentage of household population using sanitary means of excreta disposal, Mbeere District, 2008

Characteristic	Type of toilet facility used by household						Percentage of population using sanitary means of excreta disposal	Number of household members
	Improved sanitation facility			Unimproved sanitation facility				
	Flush/pour flush to:							
	Septic tank	Ventilated improved pit latrine	Pit latrine with slab	Pit latrine without slab/ open pit	No facilities/ bush/field	Total		
Education of household head								
None	2.2	11.5	19.5	59.3	6.9	100	33.8	782
Primary	0.0	5.5	20.6	66.6	6.3	100	27.1	3199
Secondary +	0.4	14.2	23.3	56.4	2.3	100	41.4	954
Wealth index								
Low	0.0	2.3	15.4	67.1	15.2	100	17.7	1444
Medium	0.0	4.8	19.5	72.2	2.9	100	25.0	1970
High	1.4	18.1	28.1	48.7	0.0	100	51.3	1521
Total	**0.4**	**8.1**	**21.0**	**63.5**	**5.6**	**100**	**31.0**	**4935**

Safe disposal of a child's faeces is where by stool is disposed off by use of the toilet or by rinsing the stool into a toilet or latrine. Information on methods of disposal of stool from children aged 0-2 years is presented in Table 7.6. Children's stool was disposed off safely in 89 per cent of the households by mostly putting the stool in the toilet/latrine.

Table 7.6 (EN.6): Disposal of child's faeces

Percentage distribution of children aged 0-2 years according to place of disposal of child's faeces, and the percentage of children aged 0-2 years whose stools are disposed of safely, Mbeere District, 2008

Characteristic	Place of disposal of child's faeces									Proportion of children whose stools are disposed of safely	Number of children aged 0-2 years
	Child used toilet	Put/ rinsed into toilet or latrine	Put/ rinsed into drain or ditch	Thrown into garbage	Buried	Left in the open	Other	Don't know/ missing	Total		
Mothers Education											
None	1.9	86.1	0.0	0.0	1.0	9.2	0.0	0.0	100.0	88.0	43
Primary	3.1	84.1	3.7	0.5	2.6	3.9	1.9	0.2	100.0	87.2	486
Secondary +	3.1	92.9	0.6	0.6	0.3	1.4	1.1	0.0	100.0	96.0	144
Wealth index											
Low	2.3	76.3	5.0	0.0	4.3	8.0	3.1	0.5	100.0	78.6	188
Medium	2.0	88.3	2.9	0.5	1.9	3.2	1.2	0.0	100.0	90.3	290
High	5.2	92.2	0.4	0.9	0.0	0.4	0.9	0.0	100.0	97.4	195
Total	**3.0**	**86.1**	**2.8**	**0.5**	**2.0**	**3.7**	**1.6**	**0.1**	**100.0**	**89.1**	**673**

An overview of household members using improved sources of drinking water and sanitary means of excreta disposal is presented in Table 7.7 (EN.7). For Mbeere district, 12 per cent of households are using improved sources of drinking water and sanitary means of excreta disposal. Almost one third of households have improved sources of sanitation, while 28 per cent have improved sources of drinking water.

Table 7.7 (EN.7): Use of improved water sources and improved sanitation

Percentage of household population using both improved drinking water sources and sanitary means of excreta disposal, Mbeere District, 2008

Characteristic	Percentage of household population:			Number of household members
	Using improved sources of drinking water	Using sanitary means of excreta disposal	Using improved sources of drinking water and using sanitary means of excreta disposal	
Education of household head				
None	26.2	33.2	14.9	782
Primary	24.5	26.1	9.3	3199
Secondary +	38.6	37.9	19.2	954
Wealth index				
Low	9.2	17.6	0.7	1444
Medium	26.7	24.3	7.9	1970
High	46.0	47.6	28.5	1521
Total	**27.5**	**29.5**	**12.1**	**4935**

Reproductive Health 8

This chapter presents information about fertility, marriage, contraception, unmet need for contraceptives and antenatal care collected in the Mbeere District MICS 2008.

8.1 Fertility

Achieving national goals is directly linked to the fertility and resources available to support its population. Studies have shown that, in most of the developing countries the resources are meagre to support its population and hence it is very important to balance the population growth. To develop programs to target fertility reduction, information about prevailing fertility levels become a crucial component. In MICS 2008, birth histories of women aged 15-49 years from sampled households were collected and used to estimate the fertility level. Birth histories include details of all children ever born to a woman, such as child's name, sex, month and year of birth, survival status and if dead, the age at death.

Current fertility measures include age-specific fertility rates (ASFRs) and total fertility rate (TFR). ASFRs are calculated by dividing the number of births to women in a specific age group by the number of women years lived during a given period. TFR is defined as the average number of children a woman would have if she went through her entire reproductive period (15-49 years) reproducing at the prevailing ASFRs. Table 8.1 presents measures of current fertility levels in Mbeere district for the three-year period preceding the survey.

The total fertility rate in Mbeere district is 4.9 children per woman for the three year period preceding the survey, which is almost two and half times the replacement level of fertility. This fertility level is high but not the highest in the province. The results also show that fertility peaks at age 20-24 years.

Table 8.1: Current fertility

Age specific fertility rates (ASFRs) and total fertility rate (TFR) for the 3-year preceding the survey, Mbeere District, 2008

Age group	ASFR
15-19	68
20-24	252
25-29	199
30-34	167
35-39	146
40-44	103
45-49	41
TFR	**4.9**

TFR: Total fertility rate for women age 15-49 years expressed per woman.

An analysis of the age-specific fertility rates shows that 46 per cent of the total fertility rate was contributed by women aged 20-29 years, and the contribution of older women 40-49 years was fifteen per cent. The contribution of the adolescent age group i.e., 15-19 years to total fertility is only seven per cent.

Percentage distribution of all women and married women based on the number of children ever born and living is shown in Table 8.2. The mean number of children ever born to married women aged 15-49 years was 3.7 and that of surviving children was 3.5. Almost four per cent of

married women aged between 15-49 years did not have any live births. Some 29 per cent of the currently married women aged 45-49 years have 8 or more children compared to 19 per cent among women aged 40-44 years.

Table 8.2: Children ever born and living

Percentage distribution of all women and currently married women by number of children ever born, and mean number of children ever born and living, according to age groups, Mbeere District, 2008

Age group	Number of children ever born									Total	Number of women	Mean number of children	
	0	1	2	3	4	5	6	7	8+			Ever born	Living
All women													
15-19	94.4	5.3	0.3							100.0	236	0.1	0.1
20-24	32.9	33.5	23.6	8.5	1.6					100.0	214	1.1	1.1
25-29	5.4	21.7	42.1	18.3	8.6	3.4	0.5			100.0	187	2.2	2.1
30-34	5.7	7.4	23.3	25.0	25.3	7.9	4.0	1.2	0.4	100.0	169	3.1	2.9
35-39		1.6	13.2	14.8	14.9	17.2	18.6	8.8	11.0	100.0	122	5.0	4.6
40-44		1.8	6.1	19.4	19.3	15.6	9.0	10.6	18.2	100.0	131	5.5	5.2
45-49			9.6	6.4	16.7	14.4	11.1	12.5	29.3	100.0	96	7.1	6.6
Total	**27.1**	**12.2**	**17.5**	**12.5**	**10.5**	**6.5**	**4.6**	**3.3**	**5.7**	**100.0**	**1156**	**2.8**	**2.6**
Currently Married Women													
15-19	44.6	55.4								100.0	14	0.6	0.6
20-24	10.0	40.2	35.1	12.0	2.7					100.0	124	1.6	1.5
25-29	1.0	19.7	48.9	18.0	10.2	1.5	0.7			100.0	155	2.3	2.2
30-34	4.5	5.5	18.9	25.2	30.2	9.3	4.4	1.5	0.5	100.0	137	3.3	3.1
35-39		1.2	8.2	15.0	14.7	18.5	21.2	8.3	12.8	100.0	100	5.3	4.9
40-44			7.6	23.5	14.0	12.5	10.5	13.1	18.8	100.0	105	5.6	5.2
45-49			5.5	7.6	12.7	16.8	15.7	13.1	28.6	100.0	68	7.3	6.8
Total	**3.7**	**13.8**	**23.5**	**17.4**	**14.0**	**8.3**	**7.1**	**4.7**	**7.5**	**100.0**	**704**	**3.7**	**3.5**

8.2 Teenage Pregnancy and Motherhood

Reducing pregnancy among adolescents is one of the flagship programs of the Government of Kenya. The distribution of women aged 15-19 years who have had a live birth or are currently pregnant by selected characteristics is shown in Table 8.3 below. Overall, about seven per cent of teenagers in Mbeere district have begun childbearing. About six per cent of women aged 15-19 years have given birth to at least one child. This proportion decreases with increasing levels of education attainment among women. The proportion of women who have had live births increases with increasing levels of the household wealth index.

Table 8.3: Teenage pregnancy and motherhood

Percentage of women aged 15-19 years who are mothers or pregnant with their first child and percentage who have begun child bearing, Mbeere District, 2008

Characteristic	Percentage who			Number of women
	Have had a live birth	Are pregnant with first child	Have began child bearing	
Age				
15	(0.0)	(0.0)	(0.0)	47
16	1.1	0.0	1.1	53
17	1.6	1.2	2.8	57
18	(11.0)	(7.3)	(18.3)	41
19	(18.9)	(2.5)	(21.4)	38
Education				
None	(*)	(*)	(*)	1
Primary	6.6	2.7	9.3	174
Secondary +	1.6	0.0	1.6	61
Wealth index				
Low	3.8	3.2	7.1	95
Medium	6.1	0.4	6.5	80
High	7.6	2.1	9.7	61
Total	**5.6**	**2.0**	**7.5**	**236**

8.3 Contraception

Appropriate family planning is important to the health of women and children by:

1) Preventing pregnancies that are too early or too late;
2) Extending the period between births; and
3) Limiting the number of children.

A World Fit for Children goal seeks to ensure access for all couples to information and services to prevent pregnancies that are too early, too closely spaced, too late or too many. Details on current use of contraception are shown in Table 8.4 (RH.1).

Current use of contraception was reported by 61 per cent of currently married women or in union. The use of modern method was reported by 57 per cent and five per cent reported use of any traditional method. The most popular modern method was the injection - which is used by 30 per cent of married women; followed by the pill which was used by 18 per cent of married women. However, about 39 per cent of women are not using any contraception.

Younger women are less likely to use modern contraception than older women, except for the 45-49 years age group. Married women aged 35-39 years reported the highest rate of contraceptives use at 73 per cent while 42 per cent of teenage women use contraception.

The percentage of women using any modern method of contraception drops from 59 per cent among those with no education to 53 per cent among women with primary education, but rises to 69 per cent among women with secondary or higher education. Modern contraceptive use increases with increasing levels of household wealth index. For example, only 38 per cent of women from low wealth index use any modern contraception versus 54 and 70 per cent for those from medium and high index households, respectively.

8.4 Unmet Need

Unmet need[7] for contraception refers to fecund women who are not using any method of contraception, but who wish to postpone the next birth or who wish to stop childbearing altogether. Unmet need is identified in MICS 2008 by using a set of questions eliciting current behaviours and preferences pertaining to contraceptive use, fecundity and fertility preferences.

Women with an unmet need for spacing include women who are currently married (or in union), fecund (are currently pregnant or think that they are physically able to become pregnant), currently not using contraception, and want to space their births. Pregnant women are considered to want to space their births when they did not want the child at the time they got pregnant. Women who are not pregnant are classified in this category if they want to have a (another) child, but want to have the child at least two years later or after marriage.

Women with an unmet need for limiting are those women who are currently married (or in union), fecund (are currently pregnant or think that they are physically able to become pregnant), currently not using contraception, and want to limit their births. The latter group includes women who are currently pregnant but had not wanted the pregnancy at all, and women who are not currently pregnant but do not want to have a (another) child. Total unmet need for contraception is simply the sum of unmet need for spacing and unmet need for limiting.

Results presented in Table 8.5 show that unmet need for contraception among women in Mbeere district is low (less than three per cent). This unmet need is mostly for child spacing and almost negligible for limiting.

[7] Unmet need measurement in MICS is somewhat different from that used in other household surveys, such as the Demographic and Health Surveys (DHS). In DHS, more detailed information is collected on postpartum amenorrhoea, and sexual activity. Results from the two types of surveys are strictly not comparable.

Table 8.4 (RH.1): Use of contraception

Percentage of women aged 15-49 years currently married or in union who are using (or whose partner is using) a contraceptive method, Mbeere District, 2008

Characteristic	Not using any method	Per cent of women (currently married or in union) who are using: Female sterilization	Pill	IUD	Inject-ions	Impl-ants	Con-dom	Diaphragm/ foam/ jelly	LAM	Periodic absti-nence	Other	Total	Any modern method	Any tradit-ional method	Any method *	Number of women
Age																
15-19	58.3	0.0	13.9	0.0	27.8	0.0	0.0	0.0	0.0	0.0	0.0	100.0	41.7	0.0	(*)	14
20-24	34.9	0.0	23.7	0.5	35.1	0.7	0.5	1.3	3.3	0.0	0.0	100.0	61.8	3.3	65.1	124
25-29	32.1	0.0	21.9	1.8	35.2	2.1	0.6	0.4	3.9	1.9	0.0	100.0	62.0	5.9	67.9	155
30-34	42.9	0.9	17.7	0.9	28.3	2.8	2.5	0.0	3.3	0.7	0.0	100.0	53.1	4.0	57.1	137
35-39	27.3	0.9	23.3	5.5	36.5	0.6	1.0	0.6	3.6	0.6	0.0	100.0	68.5	4.2	72.7	100
40-44	48.8	5.9	10.0	8.6	19.5	2.9	1.5	0.4	2.4	0.0	0.0	100.0	48.8	2.4	51.2	105
45-49	50.0	4.5	8.5	0.0	21.4	0.0	4.0	0.6	7.5	0.0	3.5	100.0	39.0	11.0	50.0	68
Number of living children **																
0	94.5	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	(*)	(*)	28
1	33.2	1.5	23.6	0.3	37.9	2.9	0.0	0.0	0.6	0.0	0.0	100.0	66.2	0.6	66.8	103
2	36.0	1.8	20.2	3.0	31.9	0.7	2.0	0.7	1.9	1.8	0.0	100.0	60.3	3.7	64.0	171
3	29.0	0.4	29.4	7.5	23.1	0.4	1.2	1.0	6.0	0.3	1.7	100.0	63.1	8.0	71.0	139
4+	42.0	2.4	11.2	1.3	32.9	2.6	2.0	0.4	4.6	0.5	0.0	100.0	52.9	5.1	58.0	263
Education																
None	36.8	0.0	20.5	7.6	22.2	2.2	6.7	0.0	4.0	0.0	0.0	100.0	59.2	4.0	63.2	55
Primary	42.4	1.9	17.5	1.3	29.5	1.5	0.5	0.4	4.3	0.7	0.0	100.0	52.6	5.0	57.6	497
Secondary +	27.7	1.4	20.4	5.6	35.3	1.9	2.8	1.0	1.5	0.7	1.6	100.0	68.5	3.8	72.3	151
Wealth index																
Low	57.7	0.4	12.9	0.8	23.5	0.0	0.0	0.0	4.3	0.4	0.0	100.0	37.6	4.7	42.3	154
Medium	39.3	2.0	15.2	1.1	30.8	2.4	1.6	0.9	5.5	1.1	0.0	100.0	54.1	6.6	60.7	282
High	27.4	1.9	24.8	5.5	33.4	1.9	2.2	0.4	1.4	0.4	0.9	100.0	70.0	2.7	72.6	268
Total	**38.8**	**1.6**	**18.4**	**2.7**	**30.2**	**1.7**	**1.5**	**0.5**	**3.7**	**0.7**	**0.3**	**100.0**	**56.5**	**4.7**	**61.2**	**704**

Note: Male sterilization, female condoms and withdrawal method are used by less than 0.05 per cent and are not shown.

(*) Based on less than 25 un-weighted figures and has been suppressed.

Using information on contraception and unmet need, the percentage of demand for contraception satisfied is presented in Table 8.5. Percentage of demand for contraception satisfied is defined as the proportion of women currently married or in union who are currently using contraception out of the total demand for contraception. The total demand for contraception includes women who currently have an unmet need (for spacing or limiting) plus those who are currently using contraception.

Table 8.5 (RH.2) shows the results of the survey on contraception, unmet need, and the demand for contraception satisfied. Overall, 96 per cent of women in Mbeere district who want to use contraception have their demands met. Differentials by wealth index show that a higher proportion of women from the low wealth index category have an unmet need compared to those from the high wealth index households. However, as expected, demand for contraception satisfied increases with increasing levels of household wealth index.

Table 8.5 (RH.2): Unmet need for contraception

Percentage of women aged 15-49 years currently married or in union with an unmet need for family planning and percentage of demand for contraception satisfied, Mbeere District, 2008

Characteristic	Current use of contraception	Unmet need for contraception			Number of women currently married or in union	Percentage of demand for contraception satisfied***	Number of women currently married or in union with need for contraception
		For spacing*	For limiting**	Total			
Age							
15-19	41.7	(*)	(*)	0.0	14	(*)	6
20-24	65.1	3.9	0.0	3.9	124	94.4	86
25-29	67.9	4.2	0.0	4.2	155	94.2	111
30-34	57.1	1.0	0.5	1.4	137	97.6	80
35-39	72.7	1.3	1.6	2.9	100	96.1	76
40-44	51.2	0.9	0.6	1.4	105	(97.2)	56
45-49	50.0	0.0	0.0	0.0	68	(100.0)	34
Education							
None	63.2	0.0	0.0	0.0	55	(100.0)	35
Primary	57.6	2.5	0.6	3.1	497	94.9	302
Secondary +	72.3	1.5	0.0	1.5	151	98.0	112
Wealth index							
Low	42.3	3.4	0.8	4.2	154	90.9	72
Medium	60.7	3.2	0.6	3.7	282	94.2	182
High	72.6	0.3	0.0	0.3	268	99.6	195
Total	**61.2**	**2.1**	**0.4**	**2.5**	**704**	**96.0**	**449**

* Unmet need for spacing is defined as women who are fecund and not currently using contraception and want to space their births.
** Unmet need to limit is defined as women who are fecund and not currently using contraception and want to limit their births.

*** Proportion of demand satisfied is defined as the proportion of currently married or in union women who are currently using contraception of the total demand for contraception.

8.5 Antenatal Care

The antenatal period presents important opportunities for reaching pregnant women with a number of interventions that may be vital to their health and well-being and that of their infants. Better understanding of foetal growth and development and its relationship to the mother's health has resulted in increased attention to the potential of antenatal care as an intervention to improve

both maternal and newborn health. For example, if the antenatal period is used to inform women and families about the danger signs and symptoms and about the risks of labour and delivery, it may provide the route for ensuring that pregnant women do, in practice deliver with the assistance of a skilled health care provider. The antenatal period also provides an opportunity to supply information on birth spacing, which is recognized as an important factor in improving infant survival. Tetanus immunization during pregnancy can be life-saving for both the mother and infant. The prevention and treatment of malaria among pregnant women, management of anaemia during pregnancy and treatment of STIs can significantly improve foetal outcomes and improve maternal health. Adverse outcomes such as low birth weight can be reduced through a combination of interventions to improve women's nutritional status and prevent infections (e.g., malaria and STIs) during pregnancy. More recently, the potential of the antenatal period as an entry point for HIV prevention and care, in particular for the prevention of HIV transmission from mother to child has led to renewed interest in access to and use of antenatal services.

WHO recommends a minimum of four antenatal visits based on a review of the effectiveness of different models of antenatal care. WHO guidelines are specific on the content on antenatal care visits which include:

- Blood pressure measurement
- Urine testing for bateriuria and proteinuria
- Blood testing to detect syphilis and severe anaemia
- Weight/height measurement (optional)

The type of personnel providing antenatal care to women aged between 15-49 years who gave birth in the two years preceding the survey is presented in Table 8.6 (RH.3). Coverage of antenatal care by any skilled personnel (a doctor, nurse, or midwife) was relatively high in Mbeere district with 97 per cent of women receiving antenatal care at least once during their pregnancy. Majority of women received care from nurses or midwives, while less than three per cent did not receive any antenatal care.

Table 8.6 (RH.3): Antenatal care provider

Percentage distribution of women aged 15-49 who gave birth in the two years preceding the survey by type of personnel providing antenatal care, Mbeere District, 2008

	Person providing antenatal care**						
Characteristic	Medical doctor	Nurse/ midwife	Other	No antenatal care	Total	Antenatal care by any skilled personnel*	Number of women who gave birth in the preceding two years
Age							
15-19	39.9	55.1	0.0	5.0	100.0	95.0	12
20-24	41.6	57.1	0.0	1.3	100.0	98.7	97
25-29	35.1	57.5	1.3	6.1	100.0	92.6	78
30-34	34.8	63.0	0.0	2.2	100.0	97.8	53
35-49	25.4	73.0	0.0	1.6	100.0	98.4	73
Education							
None	35.5	55.0	0.0	9.6	100.0	90.4	17
Primary	38.3	58.4	0.4	2.9	100.0	96.7	235
Secondary +	22.2	76.8	0.0	1.0	100.0	99.0	62
Wealth index							
Low	30.3	65.4	0.0	4.3	100.0	95.7	92
Medium	38.2	57.4	0.7	3.6	100.0	95.6	138
High	34.8	65.2	0.0	0.0	100.0	100.0	84
Total	**35.0**	**61.8**	**0.3**	**2.9**	**100.0**	**96.8**	**314**

* Skilled health personnel include doctors, nurses, midwives, and auxiliary midwives.

** If the respondent mentioned more than one provider, only the most qualified provider is considered

The types of antenatal care services pregnant women received are shown in Table 8.7 (RH 4). Among women who gave birth to a child during the two years preceding the survey, 94 per cent reported that their blood sample was taken and the blood pressure checked during antenatal care visits, 90 per cent reported that their urine specimen was taken, and 97 per cent had their weights measured. The differentials by mother's education level clearly show an increasing proportion of women receiving ANC by increasing levels of education. A similar pattern is also observed with respect to household wealth index.

Table 8.7 (RH 4): Antenatal care

Percentage of pregnant women aged 15-49 years receiving antenatal care among women who gave birth two years preceding the survey and percentage of pregnant women receiving specific care as part of the antenatal care received, Mbeere District, 2008

Characteristic	Percentage of pregnant women receiving ANC one or more times during pregnancy	Percentage of pregnant women who had:				Number of women who gave birth in two years preceding survey
		Blood test taken*	Blood pressure measured*	Urine specimen taken*	Weight measured*	
Age						
15-19	95.0	92.1	92.1	83.7	95.0	12
20-24	98.7	97.1	93.5	93.6	98.1	97
25-29	93.9	90.8	91.1	86.5	93.4	78
30-34	97.8	94.7	94.8	92.9	97.0	53
35-49	98.4	91.9	97.1	87.9	98.4	73
Education						
None	90.4	86.8	86.8	86.8	86.8	17
Primary	97.1	93.3	93.2	88.5	96.8	235
Secondary +	99.0	97.3	98.5	96.7	99.0	62
Wealth index						
Low	95.7	94.3	93.3	87.7	94.6	92
Medium	96.4	90.3	92.0	88.4	96.1	138
High	100.0	98.8	97.7	95.1	100.0	84
Total	**97.1**	**93.7**	**93.9**	**90.0**	**96.7**	**314**

* Proportions are calculated separately: Total number of women weighed, blood pressure measured, gave urine sample, and gave blood sample.

8.6 Assistance at Delivery

Three quarters of all maternal deaths occur during delivery and the immediate post-partum period. The single most critical intervention for safe motherhood is to ensure a competent health worker with midwifery skills is present at every birth, and transport is available to a referral facility for obstetric care in case of emergency. A World Fit for Children goal is to ensure that women have ready and affordable access to skilled attendance at delivery. The indicators are the proportion of births with a skilled attendant and proportion of institutional deliveries. The skilled attendant at delivery indicator is also used to track progress toward the Millennium Development target of reducing maternal mortality ratio by three quarters by 2015. The MICS 2008 included a number of questions to assess the proportion of births attended too by a skilled attendant. A skilled attendant includes a doctor, nurse, midwife or auxiliary midwife. Table 8.8 (RH 5) shows the type of personnel available at delivery by background characteristics.

In Mbeere district, about 63 per cent of births which occurred during the two years preceding the survey were delivered by skilled personnel. Most women received delivery assistance from nurses (39 per cent) and doctors (24 per cent). Younger women were more likely to be

attended too by skilled personnel and also to deliver in health facilities than their older counterparts. Surprisingly, women with no education were more likely than those with primary education to be either attended too by skilled personnel or deliver in a health facility. Women from higher wealth index households were more likely to deliver with the assistance of skilled attendant compared to their counterparts from lower wealth index households. Six per cent of deliveries in Mbeere district were assisted by traditional birth attendants and about 21 per cent of deliveries were assisted by either a relative or friend.

Table 8.8 (RH.5): Assistance during delivery

Percentage distribution of women aged 15-49 with a birth in two years preceding the survey by type of personnel assisting at delivery, Mbeere District, 2008

	Person assisting at delivery										
Characteristic	Medical doctor	Nurse/ midwife	Traditional birth attendant	Comm-unity health worker	Relative/ friend	Other	No attendant	Total	Any skilled personnel*	Delivered in health facility	Number of women who gave birth in preceding two years
Age											
15-19	32.4	41.2	0.0	0.0	21.4	5.0	0.0	100.0	73.6	73.6	12
20-24	27.7	40.7	5.0	0.3	21.7	3.5	1.2	100.0	68.3	67.5	97
25-29	21.6	39.7	5.6	1.4	18.9	8.9	3.8	100.0	61.3	60.5	78
30-34	28.0	35.7	6.3	0.8	21.5	3.6	4.1	100.0	63.7	63.7	53
35-49	16.4	37.1	9.9	0.9	21.6	6.4	7.6	100.0	53.5	51.0	73
Education											
None	24.0	39.1	0.0	0.0	21.1	3.8	11.9	100.0	63.1	63.1	17
Primary	22.8	34.7	8.3	0.7	23.3	6.6	3.7	100.0	57.5	56.3	235
Secondary +	27.5	54.0	0.5	1.6	11.9	2.3	2.2	100.0	81.5	81.2	62
Wealth index											
Low	10.0	37.1	8.6	1.2	29.6	5.4	8.1	100.0	47.1	44.6	92
Medium	29.4	33.6	5.7	0.5	21.0	7.7	2.1	100.0	63.0	63.0	138
High	29.7	49.1	5.0	0.8	11.1	2.4	1.9	100.0	78.7	77.8	84
Total	**23.8**	**38.8**	**6.3**	**0.8**	**20.9**	**5.6**	**3.8**	**100.0**	**62.5**	**61.5**	**314**

* Skilled health personnel include doctors, nurses, midwives, and auxiliary midwives.

9.1 Child learning

It is well recognized that a period of rapid brain development occurs in the first 3-4 years of life and the quality of home care is a major determinant of a child's development during this period. In this context, adult activities with children, presence of books at home for the child and the conditions of care are important indicators of quality of child care. A World Fit for Children goal is that "children should be physically healthy, mentally alert, emotionally secure, socially competent and ready to learn".

Information on a number of activities that support early learning was collected in the survey. These included the involvement of adults with children in the following activities: reading books or looking at picture books, telling stories, singing songs, taking children outside the home, compound or yard, playing with children, and spending time with children on naming, counting, or drawing things. Table 9.1 (CD.1) shows details of family support for learning disaggregated by background characteristics.

Table 9.1 (CD.1): Family support for learning

Percentage of children aged 0-59 months for whom household members are engaged in activities that promote learning and school readiness, MICS Mbeere District, 2008

	Percentage of children aged 0-59 months					
Characteristic	For whom household members engaged in four or more activities that promote learning and school readiness*	Mean number of activities household members engage in with the child	For whom the father engaged in one or more activities that promote learning and school readiness**	Mean number of activities the father engaged in with the child	Living in a household without their natural father	Number of children aged 0-59 months
Sex						
Male	38.0	3.0	20.9	0.4	32.2	555
Female	36.6	3.0	20.8	0.4	29.6	537
Age						
0-23 months	14.2	2.3	11.9	0.2	32.0	435
24-59 months	52.5	3.5	26.8	0.6	30.2	657
Mother's education						
None	32.3	2.9	17.6	0.3	50.4	90
Primary	37.0	3.0	19.7	0.4	27.7	780
Secondary +	40.4	3.3	26.5	0.5	34.6	222
Father's education						
None	34.4	3.0	39.4	0.8	0.0	53
Primary	35.1	2.9	27.4	0.6	0.0	505
Secondary +	45.4	3.4	32.8	0.6	0.0	195
Father not in HH	36.3	3.0	1.4	0.0	100	338
Wealth index						
Low	29.7	2.7	14.3	0.3	38.6	299
Medium	38.1	3.1	24.4	0.5	24.7	471
High	43.2	3.2	21.9	0.4	33.0	322
Total	**37.3**	**3.0**	**20.9**	**0.4**	**30.9**	**1092**

* Any adult has engaged in 4 or more activities to promote learning and school readiness in the past 3 days.
** Father has provided one or more activities to promote learning and school readiness.

For 37 per cent of children aged under-five, an adult engaged in at least four activities that promote learning and school readiness during the 3 days preceding the survey. Adults were more likely to engage their children in three activities. For about 21 per cent of children under five years, the father was involved in one or more activities with them. Surprisingly, a high proportion of children (31 per cent) were living in a household without their natural fathers.

10.1 Pre-School Attendance and School Readiness

Pre-school education attendance in an organized learning and child education program is important for the readiness of children to school. One of the World Fit for Children goals is the promotion of early childhood education. Details on early childhood education (ECD) by background characteristics such as sex and age of child, mother's education and wealth are presented in Table 10.1 (ED.1).

Table 10.1 (ED.1): Early childhood education

Percentage of children aged 36-59 months who are attending some form of organized early childhood education programme and percentage of standard one's who attended pre-school, MICS Mbeere District, 2008

Characteristic	Percentage of children aged 36-59 months currently attending early childhood education	Number of children aged 36-59 months	Percentage of children attending standard one who attended preschool program in previous year	Number of Children attending standard one
Sex				
Male	33.8	205	(100)	35
Female	32.6	223	(100)	29
Age of child				
36-47 months	10.6	196	NA	0
48-59 months	52.3	228	NA	0
6 years*	NA	0	100	64
Mother's education				
None	(30.0)	42	(*)	14
Primary	32.9	307	(*)	41
Secondary +	35.9	78	(*)	9
Wealth index				
Low	20.0	115	(*)	18
Medium	37.5	183	(*)	29
High	38.8	130	(*)	17
Total	**33.2**	**428**	**100**	**64**

* Primary school entry age should be defined at the country level (usually based on UNESCO's ISCED1 classification). Here, it is assumed that primary education starts at age 6.

NA: Not applicable

(*) Based on un weighted values less than 25

Almost one third (33 per cent) of children aged 36-59 months are attending pre-school. There is no significant difference in attendance of early childhood education between male and female children. Attendance of early childhood education increases with increasing levels of the mother's education level and household wealth index. As expected, younger children (36-47 months) are less likely (11 per cent) to be attending pre-school in comparison to older ones (48-59 months) at 52 per cent.

The table also shows the proportion of children in standard one of primary school who attended pre-school the previous year, an important indicator of school readiness. Overall, all the children who are aged 6 years and attending standard one of primary school had attended pre-school the previous year.

10.2 Primary and Secondary School Participation

Universal access to basic education and the achievement of primary education by the world's children is one of the most important goals of the Millennium Development Goals and A World Fit for Children. Education is a vital prerequisite for combating poverty, empowering women, protecting children from hazardous and exploitative labour and sexual exploitation, promoting human rights and democracy, protecting the environment and influencing population growth.

The indicators for primary and secondary school attendance include:

- Net intake rate in primary education
- Net primary school attendance rate
- Net secondary school attendance rate
- Net primary school attendance rate of children of secondary school age
- Female to male education ratio (or gender parity index - GPI)

The indicators of school progression include:

- Survival rate to grade five
- Transition rate to secondary school
- Net primary completion rate

Information on primary school entry by selected background characteristics is presented in Table 10.2 (ED.2). Among children of primary school entry age of 6 years, 57 per cent are attending standard one in primary school.

Table 10.2 (ED.2) Primary school entry

Percentage of children of primary school entry age (6 years old) attending grade 1,MICS Mbeere District, 2008

Characteristic	Percentage of children of primary school entry age currently attending grade 1	Number of children of primary school entry age
Sex		
Male	57.4	68
Female	55.8	57
Mother's education		
None	(*)	23
Primary	53.8	86
Secondary +	(*)	16
Wealth index		
Low	(48.3)	39
Medium	(61.9)	54
High	(58.3)	32
Total	**56.7**	**125**

(*) Based on less than 25 un-weighted figures and has been suppressed.

There are no significant differences in the proportion of children attending standard one among males and females. In addition, 54 per cent of children attending primary school have mothers who have attained a primary level education. A slightly higher proportion of children from medium wealth index households (62 per cent) and of school entry age are attending standard one versus 58 per cent for those from the high wealth index households.

Table 10.3 (ED.3) provides the percentage of children of primary school age attending primary or secondary school. Most of the children aged 6-13 years in Mbeere district are attending school with a net attendance ratio of 92 per cent. This means that about eight per cent of children aged 6-13 are out of school a sign of drop-out or low enrolment rates in the district.

Table 10.3 (ED.3): Primary school net attendance ratio

Percentage of children of primary school age (6–13 years) attending primary or secondary school, MICS Mbeere District, 2008

	Net attendance ratio*			Number of children		
Characteristic	Male	Female	Total	Male	Female	Total
Age						
6	57.4	56.9	57.2	68	57	125
7	86.9	85.2	86	58	67	125
8	98.0	98.5	98.3	64	56	120
9	99.2	95.4	97.3	72	73	145
10	100.0	99.0	99.4	60	69	129
11	100.0	100.0	100	52	58	111
12	99.3	100.0	99.7	73	82	155
13	96.7	98.8	97.8	55	59	114
Mother's education						
None	92.3	91.6	92	69	76	145
Primary	91.6	91.8	91.7	349	363	713
Secondary +	92.8	95.0	93.9	84	83	167
Wealth index						
Low	89.6	90.0	89.8	163	168	332
Medium	93.3	92.7	93.0	197	189	386
High	92.6	94.2	93.5	141	165	306
Total	**91.9**	**92.3**	**92.1**	**502**	**522**	**1024**

* The primary school net attendance ratio (NAR) is the percentage of children of primary school age who are attending primary or secondary school. Children of primary school age (6-13 years) currently attending primary or secondary school are included in the numerator. All children of primary school age are included in the denominator.

The secondary school net attendance ratio is presented in Table 10.4 (ED4). The results are dramatic and show that only 24 per cent of the children of secondary school age (14-17 years) are actually attending secondary school. This indicates a very high discontinuation rate or low transition rate from primary to secondary school in the district.

Children not attending secondary school may either be out of school (working or looking for economic opportunities) or are still in primary school. Gender differentials in secondary school attendance are apparent with 26 per cent of females compared to about 21 per cent of males attending school. As expected, the results indicate that the lower the level of the household wealth index the lower the net attendance ratio for secondary schooling.

Table 10.4 (ED.4): Secondary school net attendance ratio

Percentage of children of secondary school age (14–17 years) attending secondary school or higher ,MICS Mbeere District, 2008

	Net attendance ratio			Number of children		
Characteristic	Male	Female	Total	Male	Female	Total
Age						
14	2.0	6.3	4.4	71	56	128
15	17.8	12.6	15.5	44	55	99
16	30.4	32.3	31.5	64	47	110
17	34.8	48.7	42.0	67	62	129
Mother's education						
None	20.0	35.2	28.7	47	36	83
Primary	17.0	20.9	19.0	151	139	290
Secondary +	40.0	42.0	41.1	25	23	49
Mother not in HH	29.6	18.8	24.3	22	23	45
Wealth index						
Low	7.8	20.8	15.4	87	62	149
Medium	15.7	17.1	16.4	92	90	182
High	40.5	44.1	42.3	66	69	135
Total	**21.2**	**25.7**	**23.6**	**245**	**221**	**466**

* The secondary school net attendance ratio (NAR) is the percentage of children of secondary school age who are attending secondary school or higher. Children of secondary school age currently attending secondary school or higher are included in the numerator. All children of secondary school age are included in the denominator.

The primary school net attendance ratio for children of secondary school age is presented in Table 10.5 (ED.6). The results show that 28 per cent of children aged 14-17 years who should otherwise be in secondary schools are still in primary schools. There are more male than female students in this category.

Table 10.5 (ED.6): Secondary school age children attending primary school

Percentage of children of secondary school age (14–17 years) attending primary school, MICS Mbeere District, 2008

	Per cent attending primary school*			Number of children		
Characteristic	Male	Female	Total	Male	Female	Total
Age						
14	57.1	46.3	51.1	56	71	128
15	29.5	23.3	26.7	55	44	99
16	30.0	17.5	22.8	47	64	110
17	14.5	7.4	10.8	62	67	129
Mother's education						
None	34.1	17.6	24.7	36	47	83
Primary	32.3	30.7	31.4	139	151	290
Secondary +	(20.4)	(4.3)	(12.1)	23	25	49
Mother not in HH	(42.7)	(16.4)	(29.8)	23	22	45
Wealth index						
Low	51.2	30.1	38.8	62	87	149
Medium	27.6	28.0	27.8	90	92	182
High	21.8	10.9	16.5	69	66	135
Total	**32.4**	**24.1**	**28.0**	**221**	**245**	**466**

* Children of secondary school age currently attending primary school are included in the numerator.
All children of secondary school age are included in the denominator.
( ) Based on un-weighted figures 25-50.

The gender parity index (GPI) is the ratio of girls to boys attending primary and secondary education. These ratios are obtained from net attendance ratios as opposed to the gross attendance ratios. Information on GPI by selected background characteristics is provided in Table 10.6 (ED.7). Notice that the ratios included here were obtained from net attendance ratios rather than gross attendance ratios since the latter ratios provide an erroneous description of the GPI mainly because in most of the cases, the majority of over-aged children attending primary education tend to be boys.

The table shows that gender parity for primary school is close to 1.00, indicating that there is not much difference in the attendance of girls and boys to primary school. However, the indicator increases to 1.21 for secondary education indicating that more girls are attending secondary schools compared with boys. As expected, the primary school attendance ratio increases with increasing levels of the household wealth index and by educational level of mothers. However, a striking difference is observed in the school attendance of boys with respect to the household wealth index where the secondary school net attendance ratio for boys from low wealth index households is only eight per cent compared to approximately 41 per cent for women from high wealth index households.

Table 10.6 (E.7): Education gender parity

Ratio of girls to boys attending primary education and ratio of girls to boys attending secondary education, MICS Mbeere District, 2008

Characteristic	Primary school net attendance ratio (NAR)		Gender parity index (GPI) for primary school NAR*	Secondary school net attendance ratio (NAR)		Gender parity index (GPI) for secondary school NAR*
	Girls	Boys		Girls	Boys	
Sex						
Male	NA	91.9	NA	NA	21.2	NA
Female	92.3	NA	NA	25.7	NA	NA
Mother's education						
None	91.6	92.3	0.99	35.2	20.0	1.76
Primary	91.8	91.6	1.00	20.9	17.0	1.23
Secondary +	95.0	92.8	1.02	42.0	40.0	1.05
Wealth index						
Low	90.0	89.6	1.00	20.8	7.8	2.68
Medium	92.7	93.3	0.99	17.1	15.7	1.09
High	94.2	92.6	1.02	44.1	40.5	1.09
Total	**92.3**	**91.9**	1.00	**25.7**	**21.2**	**1.21**

* The gender parity index (GPI) is the ratio of female to male net attendance ratios (primary or secondary). The primary and secondary net attendance ratios are presented in tables ED.3 and ED.4.

10.3 Adult Literacy

One of the World Fit for Children goals is to improve adult literacy. Adult literacy is also an MDG indicator relating to both men and women. In MICS 2008, only the women questionnaire was administered and the results on adult literacy are based only on responses from females aged 15-24. Literacy was assessed on the ability of women to read a short simple statement or on school attendance. The results for literacy are presented in Table 10.7 (ED.8).

Overall, 86 per cent of young women aged 15-24 years are literate. The proportion literate was higher (91 per cent) among the younger age group compared to the older age group (80 per cent). The level of literacy increases with increasing levels of the household wealth index.

Table 10.7 (ED.8): Adult literacy

Percentage of women aged 15-24 years who are literate*,MICS Mbeere District, 2008

Characteristic	Percentage literate*	Percentage not known**	Number of women aged 15-24 years
Education			
None	(*)	0.0	10
Primary	81.8	0.3	319
Secondary +	100.0	0.5	120
Age			
15-19	91.1	0.6	236
20-24	79.8	0.0	214
Wealth index			
Low	77.6	0.0	153
Medium	89.8	0.3	176
High	90.1	0.7	120
Total	**85.7**	**0.3**	**450**

* Percentage of women aged 15-24 years who are able to read a short simple statement about everyday life or who attended secondary or higher education.

** The percentage not known includes those for whom no sentence in the required language was available or for whom no response was reported. If the percentage of the population for whom literacy status is not known exceeds 10 per cent in any category, caution should be exercised in the interpretation of the results.

((*) Not stated, based on un weighted values less than 25

11.1 Birth Registration

The Convention on the Rights of the Child states that every child has the right to a name and a nationality and the right to protection from being deprived of his or her identity. Birth registration is a fundamental means of securing these rights for children. The World Fit for Children states that there is need to develop systems to ensure the registration of every child at or shortly after birth, and fulfil his or her right to acquire a name and a nationality in accordance with national laws and relevant international instruments. The indicator is the percentage of children below five years of age whose birth is registered. Details on birth registration by background characteristics are presented in Table 11.1 (CP.1).

About 60 per cent of births in Mbeere district are registered. There are no significant variations in birth registration across sex, age, or mother's education levels. Among those whose births had not been registered, lack of knowledge that births should be registered and travel distances were the main reasons given by mothers for not registering the birth, each accounting for 23 and 18 per cent, respectively.

Table 11.1 (CP.1): Birth registration

Percentage distribution of children aged 0-59 months by whether birth is registered and reasons for non-registration, MICS Mbeere District, 2008

			Birth is not registered because:								
Characteristic	Birth is Registered	Number of children aged 0-59 months	Costs too much	Must travel too far	Didn't know child should be registered	Late, did not want to pay fine	Doesn't know where to register	Other	Don't know	Total	Number of children aged 0-59 months without birth registration
Sex											
Male	60.7	555	12.0	20.4	22.8	1.5	8.6	29.9	4.8	100.0	175
Female	58.6	537	5.8	16.1	22.7	0.3	12.6	39.8	2.7	100.0	183
Age											
0-11 months	60.1	192	11.1	13.7	20.4	0.0	9.5	49.2	0.7	100.0	51
12-23 months	58.2	235	7.7	16.1	19.9	1.8	17.9	28.9	3.7	100.0	81
24-35 months	61.2	226	8.8	23.5	24.4	0.0	8.1	29.1	6.4	100.0	75
36-47 months	63.6	206	8.8	15.6	27.1	3.0	5.1	40.3	2.3	100.0	59
48-59 months	55.8	243	8.2	12.6	23.0	0.0	10.9	31.9	5.4	100.0	83
Mother's education											
None	(61.0)	(90)	(17.5)	(17.6)	(18.5)	(0.0)	(12.4)	(30.6)	(3.3)	(100.0)	25
Primary	59.3	780	8.3	20.0	21.4	1.2	11.1	33.4	4.6	100.0	270
Secondary +	60.7	222	7.5	10.8	30.1	0.0	8.2	43.4	0.0	100.0	63
Wealth index											
Low	54.2	299	11.7	16.8	23.2	0.5	9.5	35.8	2.5	100.0	121
Medium	61.7	471	8.8	21.1	20.7	1.2	13.5	31.0	3.8	100.0	152
High	62.0	322	4.7	15.1	25.8	1.0	7.3	40.7	5.3	100.0	85
Total	**59.7**	**1092**	**8.8**	**18.2**	**22.8**	**0.9**	**10.7**	**34.9**	**3.7**	**100.0**	**359**

( ) Based on 25-50 un-weighted figures.

11.2 Child Labour

Article 32 of the Convention on the Rights of the Child states: "State Parties recognize the right of the child to be protected from economic exploitation and from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development...". The World Fit for Children mentions nine strategies to combat child labour and the MDGs call for the protection of children against exploitation. In the survey, a number of questions addressed the issue of child labour, that is, children 5-14 years of age involved in labour activities. A child is considered to be involved in child labour activities at the time of the survey if during the week preceding the survey:

Ages 5-11: at least one hour of economic work or 28 hours of domestic work per week

Ages 12-14: at least 14 hours of economic work or 28 hours of domestic work per week

This definition allows differentiation between child labour and child work to identify the type of work that should be eliminated. As such, the estimate provided here is a minimum of the prevalence of child labour since some children may be involved in hazardous labour activities for a number of hours that could be less than the numbers specified in the criteria explained above. Table 11.2 (CP.2) presents the results of child labour by the type of work. The percentages do not add up to the total child labour as one child may be involved in more than one type of work.

Table 11.2 (CP.2): Child labour

Percentage of children aged 5-14 years who are involved in child labour activities by type of work, MICS Mbeere District, 2008

Characteristic	Working outside household		Household chores for 28+ hours/ week	Working for family business	Total child labour*	Number of children aged 5-14 years
	Paid work	Unpaid work				
Sex						
Male	0.9	1.9	6.3	18.6	25.6	642
Female	0.7	1.5	6.8	15.3	22.3	678
Age						
5-11 years	1.0	2.3	5.2	21.6	28.2	923
12-14 years	0.3	0.1	9.5	6.2	13.8	397
School participation						
Yes	0.7	1.7	6.7	17.2	24.3	1273
No	(2.0)	(0.0)	(1.2)	(10.6)	(13.7)	47
Mother's education						
None	0.5	1.0	1.2	14.5	17.5	192
Primary	1.0	2.0	5.6	18.3	24.4	916
Secondary +	0.0	0.9	15.5	13.1	27.6	211
Wealth index						
Low	0.7	1.2	4.1	19.3	22.7	422
Medium	0.4	2.1	5.8	18.6	25.0	512
High	1.3	1.5	10.1	12.3	23.8	387
Total	**0.8**	**1.6**	**6.5**	**16.9**	**23.9**	**1320**

* The table is based on the responses to a series of questions in the child labour module which is administered to the mother/caretaker of each child 5-14 years of age in the household. The numerator to estimate the child labour percentage includes: (a) children 5-11 years of age who during the week preceding the survey did at least one hour of economic activity or at least 28 hours of domestic chores, and (b) children 12-14 years of age who during the week preceding the survey did at least 14 hours of economic activity or at least 28 hours of domestic chores.
( ) Based on 25-50 un-weighted figures.

Among children aged 5-14 years in Mbeere district, 24 per cent are engaged in child labour. There is a slight gender difference in child labour engagement (26 per cent for males versus 22 per cent for females). Most children are working for their family business (17 per cent) and engaging in household chores for about 28 hours in a week (seven per cent).

Table 11.3 (CP.3) presents the proportion of children classified as 'student labourers' or as 'labourer students' by selected background characteristics in the district. Student labourers are children attending school who were also involved in child labour activities at the time of the survey. The survey established that among children aged 5-14 years attending school, 24 per cent were also involved in child labour activities. In addition, almost all children who are engaged in employment are also attending school (98 per cent).

Table 11.3 (CP.3): Labourer students and student labourers

Percentage of children aged 5-14 years who are labourer students and student labourers, MICS Mbeere District, 2008

Characteristic	Percentage of children in child labour*	Percentage of children attending school	Number of children 5-14 years of age	Percentage of child labourers who are also attending school**	Number of child labourers aged 5-14	Percentage of students who are also involved in child labour***	Number of students aged 5-14
Sex							
Male	25.6	97.1	642	98.8	164	26.1	623
Female	22.3	95.9	678	97.1	151	22.5	650
Age							
5-11 years	28.2	95.3	923	97.7	260	28.9	879
12-14 years	13.8	99.2	397	99.0	55	13.8	394
Mother's education							
None	17.5	94.5	192	93.8	34	17.3	182
Primary	24.4	96.9	916	98.1	223	24.7	888
Secondary +	27.6	96.3	211	100.0	58	28.7	204
Wealth index							
Low	22.7	95.1	422	96.1	96	23.0	401
Medium	25.0	96.0	512	98.6	128	25.6	492
High	23.8	98.6	387	99.0	92	23.9	381
Total	**23.9**	**96.5**	**1320**	**98.0**	**315**	**24.3**	**1273**

* The table is based on the responses to a series of questions in the child labour module which is administered to the caretaker of each child 5-14 years of age in the household. The numerator to estimate the child labour percentage includes: (a) children 5-11 years of age who during the week preceding the survey did at least one hour of economic activity or at least 28 hours of domestic chores, and (b) children 12-14 years of age who during the week preceding the survey did at least 14 hours of economic activity or at least 28 hours of domestic chores.

** Labourer students: Number of children 5-14 years of age involved in child labour activities who are also attending school divided by the total number of children 5-14 years of age involved in child labour activities.
*** Student labourers: Number of children 5-14 years of age attending school who are also involved in child labour activities divided by the total number of children 5-14 attending school.

11.3 Child Discipline

As stated in A World Fit for Children, "children must be protected against any acts of violence …" and the Millennium Declaration calls for the protection of children against abuse, exploitation and violence. In the Mbeere district MICS, mothers/caretakers of children aged 2-14 years were asked a series of questions on the ways parents tend to use to discipline their children when they misbehave. Note that for the child discipline module, one child aged 2-14 per household was selected randomly during fieldwork. Out of these questions, the two indicators used to describe aspects of child discipline are: 1) the number of children 2-14 years old who experience psychological aggression as punishment ***or*** minor physical punishment ***or*** severe physical punishment; and 2) the number of parents/caretakers of children aged 2-14 years who believe that in order to raise their children properly, they need to physically punish them.

Table 11.4 (CP.4): Child discipline

Percentage of children aged 2-14 years according to method of disciplining the child, MICS Mbeere District, 2008

	Percentage of children 2-14 years of age who experience:								
		Type of punishment							
Characteristic	Only non-violent discipline	Psycho-logical	Minor physical	Severe physical	Any psychological or physical	No discipline or punishment	Missing	Mother/ caretaker believes that the child needs to be physically punished	Number of children aged 2-14 years**
Sex									
Male	8.1	81.1	80.9	15.6	90.3	1.4	0.2	75.3	815
Female	6.6	77.1	75.9	11.1	91.3	1.6	0.4	75.7	909
Age									
2-4 years	6.8	78.6	80.9	16.5	90.4	1.8	0.9	75.8	430
5-9 years	6.8	80.9	82.4	14.3	92.6	0.7	0.0	77.3	706
10-14 years	8.3	77.0	71.3	9.5	89.0	2.4	0.3	73.1	588
Mother's education									
None	5.7	77.3	68.2	7.0	93.5	0.5	0.2	73.0	224
Primary	8.0	81.1	80.3	16.2	90.8	0.9	0.3	76.1	1206
Secondary +	5.6	71.4	77.3	5.9	88.9	4.9	0.6	74.8	295
Wealth index									
Low	8.9	79.9	71.8	20.8	89.8	1.1	0.2	76.9	534
Medium	7.1	80.3	80.3	9.5	91.5	1.1	0.3	76.8	678
High	5.9	76.2	82.3	10.3	91.1	2.6	0.4	72.2	512
Total	**7.3**	**79.0**	**78.3**	**13.2**	**90.8**	**1.5**	**0.3**	**75.5**	**1724**

** Table is based on children aged 2-14 years randomly selected during fieldwork (one child selected per household, if any children in the age range) for whom the questions on child discipline were administered.

In Mbeere district, 91 per cent of children aged 2-14 years were subjected to at least one form of non-violent punishment by their mothers/caretakers or other household members. Thirteen per cent of children were subjected to severe physical punishment. A high proportion (76 per cent) of mothers/caretakers believed that children should be physically punished, which corroborates with the proportion of children who were subjected to minor physical punishment (78 per cent).

There are no major differences in the proportion of male and female children being punished. Again, no significant gender differences in the proportion of the mothers who believe children should be disciplined were observed. However, Children aged 5-9 years were more likely to receive any punishment compared with their younger and older counterparts. It is also of interest to note that the difference between the proportion of children receiving minor and severe punishment was very large (78 per cent reported minor physical punishment compared to 13 per cent reporting severe punishment).

11.4 Early Marriage

Marriage before the age of 18 years is a reality for many young girls. According to UNICEF's worldwide estimates, over 60 million women aged 20-24 get married before the age of 18. Factors that influence child marriage rates include: the state of the country's civil registration system, which provides proof of age for children; the existence of an adequate legislative framework with an accompanying enforcement mechanism to address cases of child marriage; and the existence of customary or religious laws that condone the practice.

In many parts of the world, parents encourage marriage of their daughters while they are still children in hopes that the marriage will benefit them both financially and socially. In reality, child marriage is a violation of human rights, compromising the development of girls and often resulting in early pregnancy and social isolation, with little education and poor vocational training reinforcing the gendered nature of poverty.

The right to 'free and full' consent to a marriage is recognized in the Universal Declaration of Human Rights - with the recognition that consent cannot be 'free and full' when one of the parties involved is not sufficiently mature to make an informed decision about a life partner. The Convention on the Elimination of all Forms of Discrimination against Women mentions the right to protection from child marriage in article 16, which states: "The betrothal and the marriage of a child shall have no legal effect, and all necessary action, including legislation, shall be taken to specify a minimum age for marriage...". While marriage is not considered directly in the Convention on the Rights of the Child, child marriage is linked to other rights - such as the right to express their views freely, the right to protection from all forms of abuse, and the right to be protected from harmful traditional practices - and is frequently addressed by the Committee on the Rights of the Child. Other international agreements related to child marriage are the Convention on Consent to Marriage, Minimum Age for Marriage and Registration of Marriages, the African Charter on the Rights and Welfare of the Child and the Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa. Child marriage was also identified by the Pan-African Forum against the Sexual Exploitation of Children as a type of commercial sexual exploitation of children.

Young married girls are a unique, though often invisible group. They are required to perform heavy amounts of domestic work and are under pressure to demonstrate fertility, and often carry the responsibility of raising children while still children themselves. Married girls and child mothers face constrained decision-making and reduced life choices. Boys are also affected by child marriage but the issue impacts girls much more. Cohabitation - when a couple lives together as if married - raises the same human rights concerns as marriage. Where a girl lives with a man and takes on the role of caregiver for him, the assumption is often that she has become an adult woman even if she has not yet reached the age of 18.

Additional concerns due to the informality of the relationship - for example, inheritance, citizenship and social recognition - might make girls in informal unions vulnerable in different ways than those who are in formally recognized marriages. Research suggests that many factors interact to increase a child's risk of marriage. Poverty, protection of girls, and family honour are considered as significant factors in determining a girl's risk of becoming married while still a child. Women who get married at younger ages are more likely to believe that it is sometimes acceptable for a husband to beat his wife, and are more likely to experience domestic violence themselves.

The age gap between partners is also thought to contribute to these abusive power dynamics and to increase the risk of untimely widowhood. Closely related to the issue of child marriage, is the age at which girls become sexually active. Women who get married before the age of 18 tend to have more children than those who get married later in life. Pregnancy related deaths are known to be a leading cause of mortality for both married and unmarried girls between the ages of 15 and 19 years particularly among the youngest of this cohort. In addition evidence suggests that girls who marry at young ages are more likely to marry older men, which puts them at an increased risk of HIV/AIDS infection. The power imbalance resulting from the age differences lead to very low

condom use among these couples. Details of early marriage by background characteristics are presented in Table 11.5 (CP.5).

Table 11.5 (CP.5): Early marriage

Percentage of women aged 15-49 years in marriage or union before their 15th birthday, percentage of women aged 20-49 years in marriage or union before their 18th birthday, and percentage of women aged 15-19 years currently married or in union, MICS Mbeere District, 2008

Characteristic	Percentage married before age 15*	Number of women aged 15-49 years	Percentage married before age 18*	Number of women aged 20-49 years	Percentage of women 15-19 married/in union**	Number of women aged 15-19 years
Age						
15-19	0.1	236	NA	NA	5.9	236
20-24	2.3	214	15.1	214	NA	NA
25-29	2.3	187	14.7	187	NA	NA
30-34	4.4	169	20.1	169	NA	NA
35-39	6.7	122	22.9	122	NA	NA
40-45	4.5	131	27.1	131	NA	NA
45-49	0.7	96	15.4	96	NA	NA
Education						
None	6.7	78	24.7	77	100	1
Primary	2.8	801	22.2	627	7.6	174
Secondary +	1.4	277	6.3	216	0.0	61
Wealth index						
Low	3.3	333	23.1	238	3.9	95
Medium	4.2	439	21.8	359	4.1	80
High	0.6	385	12.1	324	11.1	61
Total	**2.7**	**1156**	**18.7**	**920**	**5.9**	**236**

In Mbeere district very few women aged 15-49 years were married before reaching age 15. However, for women in the reproductive ages 15-49 years, about 19 per cent were married by age 18. Among adolescent girls aged 15-19 years, six per cent are currently married or in union, implying that about one in every sixteen women aged 15-19 years old in Mbeere district is already living with a partner.

An important component of marriage is the spousal age difference, with an indicator being the percentage of women married/in union with a difference of 10 or more years younger than their current spouse. Table 11.6 (CP.6) presents the results of the age difference between husbands and wives in Mbeere district. About eleven per cent of married (or in union) women aged 15-24 years in the district have partners who are 10 or more years older than them.

Table 11.6 (CP.6): Spousal age difference

Percentage distribution of currently married/in union women aged 15-19 and 20-24 years according to the age difference with their husband or partner, MICS Mbeere District, 2008

Characteristic	Percentage of currently married/in union women whose husband or partner is: Younger	0-4 years older	5-9 years older	10+ years older*	Total	Number of women currently married/ in union
Age						
15-19	0.9	36.9	48.7	13.6	100.0	14
20-24	0.0	14.1	50.2	35.7	100.0	124
Total	**1.0**	**39.4**	**48.5**	**11.1**	**100.0**	**138**

11.5 Female Genital Mutilation/Cutting

Female genital mutilation/cutting (FGM/C) is the partial or total removal of the female external genitalia or other injury to the female genital organs. FGM/C is always traumatic with immediate complications including excruciating pain, shock, urine retention, ulceration of the genitals and injury to adjacent tissue. Other complications include septicaemia, infertility, obstructed labour, and even death. The procedure is generally carried out on girls between the ages of 4 and 14; it is also done to infants, women who are about to be married and, sometimes to women who are pregnant with their first child or who have just given birth. It is often performed by traditional practitioners, including midwives and barbers, without anaesthesia, using scissors, razor blades or broken glass.

FGM/C is a fundamental violation of human rights. In the absence of any perceived medical necessity, it subjects girls and women to health risks and has life-threatening consequences. Among rights violated are, the right to the highest attainable standard of health and to bodily integrity. Furthermore, it could be argued that girls (under 18) cannot be said to give informed consent to such a potentially damaging practice as FGM/C. In MICS, a series of questions were asked to determine knowledge of FGM/C, prevalence of FGM/C, and details of the type of FGM/C performed. Table 11.7 (CP.7) presents the prevalence of FGM/C among women and the type and extent of the procedure as well as the woman's attitudes towards FGM/C.

Table 11.7 (CP.7): Female genital mutilation/cutting (FGM/C)

Percentage of women aged 15-49 years who have heard about female genital mutilation/cutting (FGM/C), had any form of FGM/C, type of FGM/C among those who have had FGM/C, the percentage who have had the extreme form of FGM/C (infibulation), MICS Mbeere District, 2008

Characteristic	Heard about FGM/C	Had any form of FGM/C*	Number of women aged 15-49 years	Percentage of women with FGM/C who: Had flesh removed	Were nicked	Were sewn closed	Form of FGM/C not determined	Total	Had an extreme form of FGM/C**	Number of women with FGM/C
Age										
15-19	95.4	41.9	236	99.6	0.0	0.4	0.0	100.0	0.4	99
20-24	96.3	57.8	214	97.2	0.0	1.3	1.5	100.0	1.3	123
25-29	98.6	49.6	187	95.0	0.0	3.6	1.4	100.0	3.6	93
30-34	98.1	60.7	169	99.4	0.0	0.6	0.0	100.0	0.6	103
35-39	96.3	66.3	122	92.7	4.2	2.4	0.7	100.0	2.4	81
40-44	100.0	87.2	131	99.5	0.0	0.5	0.0	100.0	0.5	114
45-49	100.0	79.7	96	93.2	0.0	6.8	0.0	100.0	6.8	77
Education										
None	96.9	69.5	78	98.7	0.0	0.0	1.3	100.0	0.0	54
Primary	98.3	64.4	801	96.4	0.7	2.5	0.5	100.0	2.5	516
Secondary +	95.3	43.3	277	98.7	0.0	0.8	0.5	100.0	0.8	120
Wealth index										
Low	98.5	69.7	333	96.7	1.0	1.7	0.5	100.0	1.7	232
Medium	96.9	58.7	439	96.7	0.4	2.7	0.2	100.0	2.7	258
High	97.3	52.1	385	97.7	0.0	1.4	0.9	100.0	1.4	201
Total	**97.5**	**59.7**	**1156**	**97.0**	**0.5**	**2.0**	**0.5**	**100.0**	**2.0**	**690**

* Women aged 15-49 reporting they had any type of female genital mutilation/cutting. Individual forms of FGM/C include the removal of flesh from the genital area, the nicking of the flesh of the genital area and sewing closed the genital area.

** Extreme form of FGM/C (infibulation) is defined as both the removal of flesh from the genital area AND sewing closed the genital area.

In Mbeere district, 98 per cent of women aged 15-49 years have heard about FGM/C and about 60 per cent report that they have undergone some form of FGM/C. Differentials in the level of FGM/C were noticed with respect to the educational level of the women and level of household wealth index. About 70 per cent of the women with no education had undergone FGM/C compared to 43 per cent among those with a secondary or higher education level.

For women who had heard about FGM/C, they were asked a question on their attitude towards female genital mutilation and in particular if the practice should be continued or not. Results are presented in Table 11.8 (CP.8). Majority of women in the district support discontinuation of FGM practices. However, about 12 per cent of women who have heard about FGM/C want the practice to continue. Among women who have undergone FGM/C, 19 per cent would like the practices continue.

Table 11.8 (CP.8): Attitude towards Female genital mutilation/cutting (FGM/C)

Percentage distribution of women aged 15-49 years who have heard about FGM/C according to attitudes towards whether the practice of FGM/C should be continued, MICS Mbeere District, 2008

Characteristic	Percentage distribution of women aged 15-49 years who believe the practice of FGM/C should:					Number of women aged 15-49 years who have heard of FGM/C
	Continue	Be discontinued	Depends on situation	Don't know	Total	
Age						
15-19	18.2	80.6	0.7	0.5	18.2	222
20-24	10.5	88.1	0.9	0.6	10.5	204
25-29	8.6	89.1	1.2	1.2	8.6	185
30-34	10.4	87.9	1.3	0.4	10.4	166
35-39	9.8	87.9	2.3	0.0	9.8	115
40-44	16.2	80.8	3.0	0.0	16.2	131
45-49	5.9	87.3	6.1	0.7	5.9	96
Education						
None	11.7	83.1	5.2	0.0	100	75
Primary	15.1	82.3	1.9	0.7	100	788
Secondary +	2.4	96.8	0.6	0.2	100	264
FGM/C experience						
No	0.7	98.7	0.3	0.3	100	430
Yes	19.0	77.6	2.7	0.7	100	689
Wealth index						
Low	16.9	79.4	3.3	0.4	100	325
Medium	10.8	86.3	2.1	0.8	100	424
High	8.7	90.8	0.2	0.3	100	370
Total	**11.9**	**85.8**	**1.8**	**0.5**	**100**	**1119**

Table 11.9 (CP.8) presents the prevalence and extent of FGM/C performed on daughters of the respondents. All women aged 15-49 with at least one daughter were asked whether their daughter had undergone FGM/C or not. The findings show that 14 per cent of women reported that their daughters had undergone female genital mutilation; the most common practise was the removal of flesh. Very few of the daughters had undergone extreme forms of FGM. As noted earlier, education is an important determinant in daughters having undergone FGM/C or not. Twenty nine per cent of women with no education reported that their daughters had undergone FGM/C compared with less than one per cent among those educated up to secondary or higher level.

Table 11.9 (CP.8): Female genital mutilation/cutting (FGM/C) among daughters

Percentage of women with at least one living daughter who has had female genital mutilation/cutting (FGM/C), and the percentage by type of FGM/C of the daughters, Mbeere District, 2008

Characteristics	Daughter had any form of FGM/C*	Number of women aged 15-49 years with at least one daughter	Percentage of women whose daughters: Had flesh removed	Were nicked	Were sewn closed	Form of FGM/C not determined	Total	Daughter had an extreme form of FGM/C	Number of women aged 15-49 years with at least one living daughter who had FGM/C
Age of woman									
15-24	0.0	109	0.0	0.0	0.0	0.0	0.0	0.0	0
25-34	3.2	254	52.8	0.0	47.2	0.0	100	47.2	8
35-49	27.6	310	94.5	0.9	1.8	2.8	100	1.8	86
Education									
None	28.9	66	100.0	0.0	0.0	0.0	100	0.0	19
Primary	15.5	476	88.3	1.1	7.3	3.3	100	7.3	74
Secondary +	1.1	131	100.0	0.0	0.0	0.0	100	0.0	1
Mother's FGM/C experience									
Had any FGM/C	20.4	460	90.8	0.9	5.8	2.6	100	5.8	94
No FGM/C	0.0	213	0.0	0.0	0.0	0.0	0.0	0.0	0
Wealth index									
Low	24.7	185	98.2	1.8	0.0	0.0	100	0.0	46
Medium	12.0	269	83.3	0.0	16.7	0.0	100	16.7	32
High	7.3	219	84.9	0.0	0.0	15.1	100	0.0	16
Total	**14.0**	**673**	**90.8**	**0.9**	**5.8**	**2.6**	**100**	**5.8**	**94**

11.6 Domestic Violence

A number of questions were addressed to women aged 15-49 years to assess their attitudes towards whether husbands are justified to hit or beat their wives/partners for a variety of scenarios. These questions were asked to have an indication of cultural beliefs that tend to be associated with the prevalence of violence against women by their husbands/partners. The main assumption here is that women that agree with the statements indicating that husbands/partners are justified to beat their wives/partners under the situations described in reality tend to be abused by their own husbands/partners. The responses to these questions can be found in Table 11.10 (C.P9).

In Mbeere district, 59 per cent of the women aged 15-49 years believe that a husband is justified in beating his wife/partner when she goes out without telling him, neglects children or argues with him, refuses to have sex with him or burns food. Among the five reasons mentioned above, 40 per cent approved beating due to neglect of children, 37 per cent in case of refusal to have sex, 21 per cent for arguing with him, and 20 per cent for going out without permission from him.

Women with secondary education were less likely to approve domestic violence compared to those with lower education levels.

Table 11.10: Attitudes toward domestic violence

Percentage of women aged 15-49 years who believe a husband is justified in beating his wife/partner in various circumstances, MICS Mbeere District, 2008

Characteristic	Percentage of women aged 15-49 years who believe a husband is justified in beating his wife/partner: When she goes out without telling him	When she neglects the children	When she argues with him	When she refuses sex with him	When she burns the food	For any of these reasons	Number of women aged 15-49 years
Age							
15-19	21.5	42.2	22.8	40.5	6.4	64.5	236
20-24	20.9	41.3	26.2	37.4	6.1	59.3	214
25-29	15.5	34.1	17.3	32.1	2.4	53.9	187
30-34	18.7	41.8	21.5	38.6	3.0	57.9	169
35-39	22.8	39.5	26.3	37.4	2.4	58.3	122
40-44	23.6	44.6	15.9	33.6	1.5	60.3	131
45-49	20.0	33.9	14.7	38.7	3.1	53.3	96
Marital/Union status							
Currently married/ in union	19.0	38.3	19.9	36.0	2.6	56.3	704
Formerly married/ in union	27.4	54.1	33.9	44.9	3.3	74.2	102
Never married/ in union	20.6	39.2	20.4	36.8	6.8	59.4	351
Education							
None	25.7	42.6	25.1	34.5	4.7	58.1	78
Primary	21.9	43.1	23.3	39.9	4.2	62.6	801
Secondary +	14.1	30.1	14.2	29.6	3.1	48.2	277
Wealth index							
Low	26.7	41.4	27.7	45.1	6.3	67.7	333
Medium	19.7	43.1	23.6	38.2	3.7	58.0	439
High	15.4	35.1	13.0	28.8	2.1	51.9	385
Total	**20.2**	**40.0**	**21.3**	**37.0**	**3.9**	**58.8**	**1156**

12.1 Knowledge of HIV Transmission and Condom Use

One of the most important prerequisites for reducing the rate of HIV/AIDS HIV infection is having accurate knowledge of how HIV/AIDS is transmitted and strategies for preventing transmission. Correct information is the first step toward raising awareness and giving young people the tools to protect them from infection. Misconceptions about HIV/AIDS are common and can deny young people and hinder prevention efforts. Different regions are likely to have variations in misconceptions although some appear to be universal (for example that sharing food can transmit HIV or mosquito bites can transmit HIV/AIDS). The UN General Assembly Special Session on HIV/AIDS (UNGASS) called on governments to improve the knowledge and skills of young people to protect themselves from HIV/AIDS. The indicators to measure this goal as well as the MDG of reducing HIV/AIDS infections by half include improving the level of knowledge of HIV/AIDS and its prevention, and changing behaviours to prevent further spread of the disease. The HIV/AIDS module was administered to women 15-49 years of age.

One measure which is both an MDG and UNGASS indicator is the percentage of young women who have comprehensive and correct knowledge of HIV prevention and transmission. Women were asked whether they knew the three main ways of HIV/AIDS transmission – having only one faithful uninfected partner, using a condom every time, and abstaining from sex. The results are presented in Table 12.1(HA.1).

In Mbeere District, almost all of the interviewed women had heard of HIV/AIDS. However, the percentage of women who knew all the three main ways of preventing HIV/AIDS transmission was only 58 per cent. Knowledge of at least one way to prevent transmission of HIV/AIDS among women in the district was near universal (96 per cent). As expected, the level of knowledge about preventing transmission of HIV increases with increasing levels of education and the level of household wealth index.

Table 12.1 (HA.1): Knowledge of preventing HIV transmission

Percentage of women aged 15-49 years who know the main ways of preventing HIV transmission, MICS Mbeere District, 2008

Characteristic	Heard of AIDS	Percentage who know transmission can be prevented by: Having only one faithful uninfected sex partner	Using a condom every time	Abstaining from sex	Knows all three ways	Knows at least one way	Doesn't know any way	Number of women
Age								
15-19	99.5	84.6	67.6	81.8	53.9	95.8	4.2	236
20-24	99.7	86.7	72.3	86.6	61.4	94.7	5.3	214
25-29	99.7	90.5	75.6	85.6	67.2	96.8	3.2	187
30-34	100.0	87.5	72.6	86.4	63.4	95.3	4.7	169
35-39	100.0	86.8	64.9	82.4	52.4	95.6	4.4	122
40-44	99.5	81.5	55.8	76.5	42.2	95.4	4.6	131
45-49	100.0	92.2	64.9	93.2	57.8	98.3	1.7	96
Education								
None	99.2	84.7	61.1	87.8	57.9	93.4	6.6	78
Primary	99.7	85.4	65.5	82.2	53.4	94.9	5.1	801
Secondary +	100.0	92.0	80.0	90.1	70.2	99.3	0.7	277
Wealth index								
Low	99.4	83.9	64.1	83.7	52.1	95.0	5.0	333
Medium	99.7	86.6	65.3	84.9	56.0	95.5	4.5	439
High	100.0	89.7	76.4	84.5	64.5	97.0	3.0	385
Total	**99.7**	**86.9**	**68.7**	**84.4**	**57.7**	**95.8**	**4.2**	**1156**

Note: This table is based on all women aged 15-49 years

Table 12.2 (HA.2) presents the proportion of women who could correctly identify misconceptions concerning HIV. The indicator is based on the two most common and relevant misconceptions, that HIV can be transmitted by supernatural means and through mosquito bites. The table also provides information on whether women knew that HIV cannot be transmitted by sharing food, and that HIV can be transmitted by sharing needles.

Among interviewed women, 66 per cent rejected the two most common misconceptions and indicated that they know that a healthy-looking person can be infected. Ninety four per cent of women know that HIV cannot be transmitted by supernatural means, 85 per cent know that HIV cannot be transmitted by sharing food, while 95 per cent of the women know that a healthy-looking person can be infected. From the results, it is evident that a higher proportion of educated women have correct knowledge about HIV/AIDS compared to those with no education. Fifty nine per cent of women educated up to primary level rejected the two most common misconceptions and know that a healthy-looking person can be infected versus with 87 per cent among those educated up to secondary or higher levels.

Table 12.2: (HA.2) Identifying misconceptions about HIV/AIDS

Percentage of women aged 15-49 years who correctly identify misconceptions about HIV/AIDS, MICS Mbeere District, 2008

Characteristic	Percentage who know that: HIV cannot be transmitted by: Option 1: Supernatural means	Option 2: Mosquito bites	A healthy looking person can be infected	Reject two most common misconceptions and know a healthy-looking person can be infected	Percentage who know that: Option 3: HIV cannot be transmitted by sharing food	Option 4: HIV can be transmitted by sharing needles	Number of women
Age							
15-19	95.4	76.0	91.4	67.3	81.1	97.7	236
20-24	95.5	70.7	95.3	65.2	85.3	99.3	214
25-29	93.5	75.3	96.3	69.6	87.9	98.7	187
30-34	94.6	75.8	97.6	71.5	87.7	98.9	169
35-39	97.4	69.3	98.9	67.9	89.1	98.5	122
40-44	89.2	70.0	93.8	59.0	83.9	97.2	131
45-49	91.6	59.8	97.7	57.8	76.0	99.4	96
Education							
None	87.3	76.3	95.6	68.1	77.5	99.2	78
Primary	93.7	65.7	94.3	59.0	81.9	98.0	801
Secondary +	97.6	89.4	98.6	86.5	94.7	99.6	277
Wealth index							
Low	92.1	63.0	92.6	55.0	77.4	97.0	333
Medium	95.7	71.7	95.5	66.4	85.0	98.6	439
High	94.2	80.5	97.7	75.8	90.6	99.7	385
Total	**94.2**	**72.1**	**95.4**	**66.2**	**84.7**	**98.5**	**1156**

Note: This table is based on all women aged 15-49 years

Table 12.3 summarizes information from Tables 12.1 (HA.1) and 12.2 (HA.2) and presents the percentage of women who know 2 ways of preventing HIV transmission and reject the three common misconceptions.

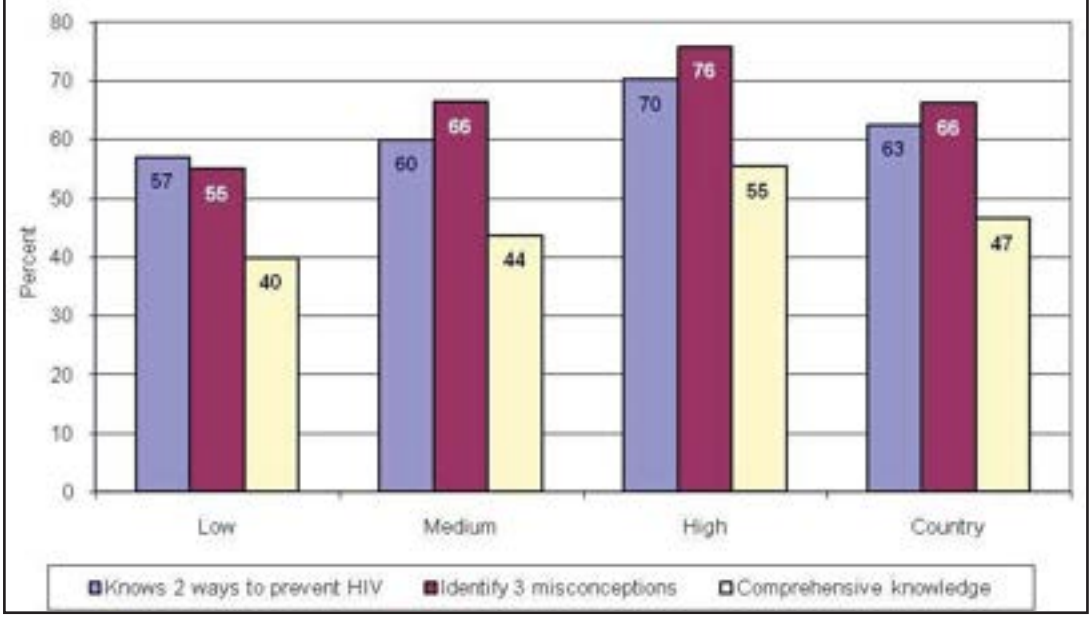
Comprehensive knowledge of HIV prevention methods and transmission is still fairly low. Overall, 47 per cent of women aged 15-49 years in Mbeere District have comprehensive knowledge about HIV/AIDS. As expected, the percentage of women with comprehensive knowledge increases with increasing levels of the household wealth index (Figure 12.1). However, the proportion of women with comprehensive knowledge was highest among women with secondary or higher level of education (66 per cent) and lowest among women with primary level education (39 per cent).

Table 12.3 (HA.3): Comprehensive knowledge of HIV/AIDS transmission

Percentage of women aged 15-49 years who have comprehensive knowledge of HIV/AIDS transmission, MICS Mbeere District, 2008

Characteristic	Know 2 ways to prevent HIV transmission	Correctly identify 3 misconceptions about HIV transmission	Have comprehensive knowledge (identify 2 prevention methods and 3 misconceptions)	Number of women
Age				
15-19	59.8	67.3	48.2	236
20-24	65.5	65.2	47.4	214
15-24	62.5	66.3	47.8	450
25-29	72.1	69.6	51.9	187
30-34	67.2	71.5	52.1	169
35-39	57.4	67.9	44.4	122
40-44	48.9	59.0	32.4	131
45-49	60.8	57.8	41.6	96
Education				
None	59.8	68.1	49.3	78
Primary	59.1	59.0	39.4	801
Secondary +	73.4	86.5	66.2	277
Wealth index				
Low	57.0	55.0	39.8	333
Medium	60.0	66.4	43.7	439
High	70.2	75.8	55.4	385
Total	**62.5**	**66.2**	**46.5**	**1156**

Figure 12.1: Percentage of women who have comprehensive knowledge of HIV/AIDS transmission, MICS Mbeere district, 2008



Knowledge of mother-to-child transmission of HIV is also an important first step for women to seek HIV testing when they are pregnant to avoid infection transmission to the baby. Women should know that HIV can be transmitted during pregnancy, delivery, and through breastfeeding. The level of knowledge among women aged 15-49 years concerning mother-to-child transmission is presented in Table 12.4 (HA.4).

Overall, 98 per cent of women knew that HIV can be transmitted from mother to child. The percentage of women who knew all three ways of mother-to-child transmission is 49 per cent. Contrary to expectations, differentials in the proportion of women with correct knowledge regarding mother-to-child transmission of HIV by level of education and household wealth index are minimal.

Table 12.4 (HA.4): Knowledge of mother-to-child HIV transmission

Percentage of women aged 15-49 years who correctly identify means of HIV transmission from mother to child, MICS Mbeere District, 2008

Characteristic	Know AIDS can be transmitted from mother to child	Percentage who know AIDS can be transmitted: During pregnancy	At delivery	Through breast milk	All three ways	Did not know any specific way	Number of women
Age							
15-19	98.6	59.9	86.4	93.0	47.4	0.9	236
20-24	97.6	63.9	83.9	93.2	55.5	2.1	214
25-29	98.7	51.4	87.5	97.6	45.9	1.0	187
30-34	99.3	56.4	90.7	91.0	49.0	0.7	169
35-39	100.0	55.1	89.4	95.8	49.7	0.0	122
40-44	95.5	54.7	79.0	92.4	45.9	4.0	131
45-49	97.1	42.5	85.3	92.5	41.6	2.9	96
Education							
None	97.0	54.0	87.0	95.0	48.2	2.2	78
Primary	98.5	58.0	86.0	93.5	49.9	1.2	801
Secondary +	97.7	51.6	86.2	94.1	44.6	2.3	277
Wealth index							
Low	97.3	56.7	85.3	90.4	47.7	2.2	333
Medium	98.2	57.3	86.0	94.5	49.1	1.5	439
High	99.0	54.5	87.0	95.6	48.4	1.0	385
Total	**98.2**	**56.2**	**86.1**	**93.7**	**48.5**	**1.5**	**1156**

Indicators on attitudes towards people living with HIV measure stigma and discrimination in the community. Stigma and discrimination are low if respondents report an accepting attitude on the following four questions:

1) Would care for family member sick with AIDS;
2) Would buy fresh vegetables from a vendor who was HIV positive;
3) Think that a female teacher who is HIV positive should be allowed to teach in school; and
4) Would not want to keep HIV status of a family member a secret.

Table 12.5(HA.5) presents the attitudes of women towards people living with HIV/AIDS.

Table 12.5 (HA.5): Attitudes toward people living with HIV/AIDS

Percentage of women aged 15-49 years who have heard of AIDS who express a discriminatory attitude towards people living with HIV/AIDS, MICS Mbeere District, 2008

Characteristic	Percentage of women who: Would not care for a family member who was sick with AIDS	If a family member had HIV would want to keep it a secret	Believe that a teacher with HIV should not be allowed to work	Would not buy food from a person with HIV/AIDS	Agree with at least one discriminatory statement	Agree with none of the discrimi-natory statements	Number of women who have heard of AIDS
Age							
15-19	4.4	58.2	44.2	40.0	88.5	11.5	235
20-24	7.5	61.0	41.1	45.0	84.2	15.8	213
25-29	4.4	62.3	33.6	37.8	83.5	16.5	187
30-34	3.2	56.0	28.1	36.2	78.9	21.1	169
35-39	3.3	51.6	33.6	34.2	77.0	23.0	122
40-44	4.9	46.4	42.3	38.1	81.1	18.9	130
45-49	4.8	60.2	48.8	34.6	83.1	16.9	96
Education							
None	2.1	51.1	44.1	24.7	72.6	27.4	77
Primary	6.3	57.5	42.4	43.1	85.7	14.3	799
Secondary +	1.3	58.0	25.8	29.9	77.9	22.1	277
Wealth index							
Middle	5.2	56.7	45.8	42.6	85.0	15.0	331
Fourth	5.0	56.4	41.1	43.0	85.1	14.9	437
Richest	4.2	58.5	29.4	30.5	78.9	21.1	385
Total	**4.8**	**57.2**	**38.6**	**38.7**	**83.0**	**17.0**	**1153**

Note: This table is based on women who had heard of AIDS.

Among women who have heard about HIV/AIDS, 17 per cent expressed discriminatory attitudes towards people with HIV/AIDS. Nearly six in ten respondents would want to keep the HIV status of a family member secret, while over 95 per cent would care for a family member who is sick with AIDS.

Another important indicator is the knowledge of where to be tested for HIV and use of such services. Questions related to knowledge of a facility for HIV testing and whether they have ever been tested is presented in Table 12.6(HA.6).

Most (94 per cent) of the women knew where to be tested, while 53 per cent had actually been tested. Of these, a large proportion (99 per cent) had been told the result. Differentials by level of education and wealth index show that knowledge about various aspects related to HIV testing increases with increasing levels of education and household wealth index.

Table 12.6 (HA.6): Knowledge of a facility for HIV testing

Percentage of women aged 15-49 years who know where to get an HIV test, percentage of women who have been tested and, of those tested the percentage who have been told the result, MICS Mbeere District, 2008

Characteristic	Know a place to get tested*	Have been tested**	Number of women	If tested, have been told result	Number of women who have been tested for HIV
Age					
15-19	86.3	14.1	236	98.2	33
20-24	96.3	68.5	214	99.6	146
25-29	98.1	75.6	187	99.6	142
30-34	97.8	73.2	169	98.3	124
35-39	97.8	61.1	122	99.1	75
40-44	91.0	42.7	131	100.0	56
45-49	96.4	36.0	96	100.0	35
Education					
None	88.3	54.2	78	100.0	42
Primary	93.7	54.8	801	98.9	439
Secondary +	98.0	46.7	277	100.0	129
Wealth index					
Low	86.7	46.2	333	98.6	154
Medium	96.6	56.5	439	99.0	248
High	98.3	54.4	385	100.0	209
Total	**94.3**	**52.8**	**1156**	**99.2**	**611**

* Women who know of a place to get tested for HIV include those women who have already been tested, including those tested during antenatal care.
** Women who have been tested for HIV include those tested during antenatal care.
The second and third columns of the table include all women in the denominator, even those who have not heard of AIDS.
In the fifth column, the denominator consists of women who have been tested and the numerator consists of women who have been told the results.

Among women who had given birth within the two years preceding the survey, the proportion who received counselling and HIV testing during antenatal care is presented in Table 12.7(HA.7).

Ninety seven per cent of mothers in Mbeere district received antenatal care from a health professional, 93 per cent were provided information about HIV prevention, and 94 per cent were tested for HIV during their antenatal care visits. Among those tested for HIV, 93 per cent received the results of HIV test during the antenatal care visit.

Table 12.7: HIV testing and counseling coverage during antenatal care

Percentage of women aged 15-49 years who gave birth in the two years preceding the survey who were offered HIV testing and counseling with their antenatal care, MICS Mbeere District, 2008

Characteristic	Percentage of women who:				Number of women who gave birth in the 2 years preceding the survey
	Received antenatal care from a health care professional for last pregnancy	Were provided information about HIV prevention during ANC visit	Were tested for HIV at ANC visit	Received results of HIV test at ANC visit	
Age					
15-19	95.0	92.1	92.1	92.1	12
20-24	98.7	92.4	97.1	97.1	97
25-29	92.6	91.3	91.3	91.3	78
30-34	97.8	95.7	95.1	94.0	53
35-49	98.4	94.3	91.4	90.5	73
Education					
None	90.4	86.3	90.4	90.4	17
Primary	96.7	92.4	93.2	92.6	235
Secondary +	99.0	97.4	97.0	97.0	62
Wealth index					
Low	95.7	89.2	92.1	92.1	92
Medium	95.6	93.9	93.0	92.1	138
High	100.0	96.0	97.0	97.0	84
Total	**96.8**	**93.1**	**93.8**	**93.4**	**314**

12.2 Orphans and Vulnerable Children

As the HIV epidemic progresses, more and more children are becoming orphaned and vulnerable. Children who are orphaned or in vulnerable households may be at increased risk of neglect or exploitation if the parents are not available to assist them. Monitoring the variations in different outcomes for orphans and vulnerable children versus their non-orphaned peers gives us a measure of how well communities and governments are responding to their needs.

To monitor these variations, a measurable definition of orphaned and vulnerable children needed to be created. The UNAIDS Monitoring and Evaluation Reference Group developed proxy definition of children who have been affected by adult morbidity and mortality. This should capture many of the children affected by AIDS in countries where a significant proportion of the adults are HIV infected. This definition classifies children as orphaned and vulnerable if they have experienced the death of either parent, if either parent is chronically ill, or if an adult (aged 18-59) in the household either died (after being chronically ill) or was chronically ill in the year prior to the survey.

Information on children's living arrangements and orphanhood status is presented in Table 12.8 (HA.10). Sixty four per cent of children aged 0-17 years in Mbeere district live with both parents while five per cent do not live with a biological parent. Twenty two per cent of the children live with the mother only although the father is alive. Six per cent of the children have lost at least one parent. As expected, the proportion of children not living with parents increases with the age of the child.

Table 12.8 (HA.10): Children's living arrangements and orphanhood

Percentage distribution of children aged 0-17 years according to living arrangements, percentage of children aged 0-17 years in households not living with a biological parent and percentage of children who are orphans, MICS Mbeere District, 2008

Characteristic	Living with both parents	Living with neither parent				Living with mother only		Living with father only		Impossible to determine	Total	Not living with a biological parent*	One or both parents dead**	Number of children
		Only father alive	Only mother alive	Both are alive	Both are dead	Father alive	Father dead	Mother alive	Mother dead					
Sex														
Male	63.3	0.0	0.7	5.3	0.4	23.2	3.9	0.5	0.4	2.3	100	6.4	5.8	1184
Female	64.9	0.1	0.3	3.9	0.2	20.6	4.4	0.7	1.1	3.8	100	4.6	6.6	1221
Age														
0-4 years	68.3	0.1	0.0	2.7	0.0	23.7	1.8	0.3	0.2	2.8	100	2.8	2.1	747
5-9 years	63.8	0.0	0.7	5.3	0.0	22.4	3.3	0.2	0.8	3.6	100	6.0	5.1	683
10-14 years	64.5	0.1	1.1	4.5	1.0	18.5	5.7	1.1	1.0	2.6	100	6.6	9.5	637
15-17 years	55.1	0.0	0.2	7.7	0.1	23.2	7.8	1.1	1.5	3.4	100	8.0	11.4	339
Wealth index														
Low	59.0	0.0	0.0	4.2	0.0	24.1	6.5	0.5	0.9	4.8	100	4.2	8.1	740
Medium	68.5	0.0	1.3	4.4	0.1	18.8	2.4	0.5	1.1	2.8	100	5.8	5.5	962
High	63.5	0.2	0.0	5.3	0.7	23.8	4.0	0.7	0.2	1.5	100	6.3	5.2	703
Total	**64.1**	**0.1**	**0.5**	**4.6**	**0.3**	**21.9**	**4.1**	**0.6**	**0.8**	**3.1**	**100**	**5.4**	**6.2**	**2405**

*Children who are not living with at least one biological parent, either because the parents live elsewhere or because the parents are dead.

**Children for whom one or both biological parents are dead.

The denominator in this table is children aged 0-17 years enumerated in the household listing.

Table 12.9 (HA.11) shows the percentage of orphaned and vulnerable children aged between 0-17 years. The results show that about 11 per cent of children under 17 years in the district are orphaned and vulnerable. Five per cent of the children lived in a household with an adult member chronically ill for 3 or more months during the year preceding the survey. About six per cent of the children aged 0-17 have one or both of their parents dead.

Table 12.9 (HA.11): Prevalence of orphanhood and vulnerability among children

Percentage of children aged 0-17 years who are orphaned or vulnerable due to AIDS, MICS Mbeere District, 2008

Characteristic	Chronically ill parent	Adult death in household	Chronically ill adult in household	Vulnerable children	One or both parents dead	Orphans and vulnerable children	Number of children aged 0-17 years
Sex							
Male	0.8	0.3	5.6	6.2	5.8	11.4	1184
Female	0.5	0.3	4.3	4.8	6.6	11.0	1221
Age							
0-4 years	0.5	0.3	2.9	3.5	2.1	5.4	747
5-9 years	0.5	0.2	5.6	6.2	5.1	10.9	683
10-14 years	0.1	0.2	4.2	4.3	9.5	13.3	637
15-17 years	2.3	0.9	9.6	10.8	11.4	20.7	339
Wealth index							
Low	1.4	0.0	9.7	10.0	8.1	17.5	740
Medium	0.2	0.6	3.8	4.3	5.5	9.1	962
High	0.6	0.3	1.6	2.4	5.2	7.4	703
Total	**0.7**	**0.3**	**5.0**	**5.5**	**6.2**	**11.2**	**2405**

The columns of the table are produced as follows:

1) Either parent has been chronically ill for 3 of the 12 months preceding the survey
2) Adult death in the household after a chronic illness of 3 of the 12 months preceding the survey
3) Any adult in the household has been sick for 3 of the 12 months preceding the survey
4) A vulnerable child is defined as a child who lives in a household where any of the preceding 3 conditions is true.
5) A child is an orphan if one or both of his/her biological parents is dead
6) Orphaned or vulnerable children are those defined in columns 4 or 5.
7) Total number of children aged 0-17 years as enumerated in the household listing.
   An orphan is a child aged 0-17 years who has lost one or both parents

One of the measures developed for the assessment of the status of orphaned and vulnerable children relative to their peers looks at the school attendance of children who have lost both parents (double orphans) versus children whose parents are alive (and who live with at least one of these parents). If children whose parents have died do not have the same access to school as their peers, then families and schools are not ensuring that these children's rights are met. Information on school attendance of orphaned and vulnerable children by background characteristics is presented in Table 12.10 (HA.13).

All children with both parents dead were currently attending school. Nearly all children aged 10-14 who had not lost a parent and either lived with at least one of the parents were attending school. These results suggest that orphans in Mbeere district are not disadvantaged compared to the non-orphaned children in terms of school attendance.

Table 12.10 (HA.13): School attendance of orphaned and vulnerable children

School attendance of children aged 10-14 years by orphan hood and vulnerability due to AIDS, MICS Mbeere District, 2008

Characteristic	Percentage of children whose mother and father have died	School attendance rate of children whose mother and father have died	Percentage of children of whom both parents are alive and child is living with at least one parent	School attendance rate of children of whom both parents are alive and child is living with at least one parent	Double orphans to non-orphans school attendance ratio*	Percentage of children who are orphaned or vulnerable	School attendance of children who are orphaned or vulnerable	Percentage of children who are not orphaned or vulnerable	School attendance of children who are not orphaned or vulnerable	OVC vs non-OVC school attendance ratio	Total number of children aged 10-14 years
Sex											
Male	1.5	100.0	85.4	99.3	1.01	13.8	100	86.2	99.1	1.01	297
Female	0.5	100.0	82.8	99.9	1.00	12.8	100	87.2	99.7	1.00	340
Wealth index											
Low	0.0	0.0	81.0	100.0	0.00	18.1	100	81.9	99.7	1.00	202
Medium	0.6	100.0	83.8	99.2	1.01	12.2	100	87.8	99.0	1.01	244
High	2.5	100.0	87.6	99.7	1.00	9.6	100	90.4	99.7	1.00	192
Total	**1.0**	**100.0**	**84.0**	**99.6**	**1.00**	**13.3**	**100**	**86.7**	**99.4**	**1.01**	**637**

*A double orphan is a child whose mother and father have both died.

Orphaned and vulnerable children due to AIDS (OVC) include children whose mother or father have died (regardless of cause), who live in a household with a chronically ill adult, whose parents are chronically ill, or who live in a household where an adult who was chronically ill has died in the past year.

In many countries few services are available to families that have taken in children who are orphaned or vulnerable. Community-based organizations and governments need to be sure that families are supported to care for these children. The level and types of support provided to households caring for orphaned and vulnerable children is presented in Table 12.11.

Sixty one per cent of the orphaned or vulnerable children aged 0-17 years did not receive any support, while 19 per cent received medical support during the year preceding the survey. About 35 per cent of orphaned or vulnerable children received educational support. Overall, 39 per cent of orphaned and vulnerable children received some form of support.

Table 12.11: Support for children orphaned and vulnerable due to AIDS

Percentage of children aged 0-17 years orphaned or made vulnerable due to AIDS whose households receive free basic external support in caring for the child, MICS Mbeere District, 2008

	Percentage of orphans and vulnerable children whose households received:						Number of children aged 0-17 years orphaned or vulnerable
Characteristic	Medical support (in last 12 months)	Emotional and psychosocial support (in last 3 months)	Social/ material support (in last 3 months)	Educational support (in last 12 months)	Any support	No support at all	
Sex							
Male	17.2	1.7	0.4	33.4	37.1	62.9	135
Female	20.0	1.7	0.0	37.0	40.4	59.6	135
Age							
0-4 years	18.4	1.4	0.0	0.0	18.4	81.6	40
5-9 years	23.4	0.7	0.8	45.6	45.6	54.4	75
10-14 years	19.6	2.0	0.0	43.7	43.7	56.3	85
15-17 years	12.5	2.6	0.0	33.9	37.2	62.8	70
Wealth index							
Low	17.8	1.4	0.0	35.4	38.9	61.1	130
Medium	25.6	0.0	0.0	44.2	48.0	52.0	88
High	8.8	5.4	1.1	19.3	22.6	77.4	52
Total	**18.6**	**1.7**	**0.2**	**35.2**	**38.8**	**61.2**	**269**

Orphaned and vulnerable children due to AIDS (OVC) include children whose mother or father have died (regardless of cause), who live in a household with a chronically ill adult, whose parents are chronically ill, or who live in a household where an adult who was chronically ill has died in the past year.

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Appendix A: Sample Design

The major features of sample design are described in this appendix. Sample design features include target sample size, sample allocation, sample frame and listing, choice of domains, sampling stages, stratification, and the calculation of sample weights.

The primary objective of the sample design for the Mbeere Multiple Indicator Cluster Survey (MICS) was to produce statistically reliable estimates of most indicators, at the district level. A two-stage, cluster sampling approach was used for the selection of the survey sample. Further, the households were stratified into two groups one with a child below 3 years (stratum-1) and the other without a child below 3 years (stratum-2) at the time of household listing, and more households from stratum-1 were selected to get more children in the sample from less number of households. The cluster level stratification was done to net more children and mothers who have given birth during the last few years into the sample.

Sample Size and Sample Allocation

The target sample size for the Mbeere MICS was calculated as 1,200 households. For the calculation of the sample size, the key indicator used was the immunization coverage among children age 12-23 months. The following formula was used to estimate the required sample size for these indicators:

$$n = \frac{[\,4\,(r)\,(1\text{-}r)\,(f)\,(1.1)\,]}{[\,(0.12r)^2\,(p)\,(n_h)\,]}$$

Where

n is the required sample size, expressed as number of households
4 is a factor to achieve the 95 per cent level of confidence
r is the predicted or anticipated prevalence (coverage rate) of the indicator
1.1 is the factor necessary to raise the sample size by 10 per cent for non-response
f is the shortened symbol for *deff* (design effect)
0.12r is the margin of error to be tolerated at the 95 per cent level of confidence, defined as 12 per cent of r (relative sampling error of r)
p is the proportion of the total population upon which the indicator, r, is based
n_h is the average household size.

For the calculation, r (the immunization coverage) was assumed to be 65 percent. The value of *deff* (design effect) was taken as 1.3 based on estimates from previous surveys, p (percentage of children aged 12-23 months in the total population) was taken as 3.2 percent, and n_h (average household size) was taken as 4.4 households.

The resulting number of households from this exercise was 1,519 households which is the sample size needed. But, by adopting the second level stratification the total number of households to be selected was 1,080. However, it was decided to sample 1,200 households. The average cluster size was determined as 24 households (16 from stratum-1 and 8 from stratum-2), based on a number of considerations, including the budget available, and the time that would be needed per team to complete one cluster. This implies a total of 50 clusters for the district.

Sampling Frame and Selection of Clusters

The 1999 census frame was used for the selection of clusters. Census enumeration areas (EAs) were defined as primary sampling units (PSUs), and were selected using systematic PPS (probability proportional to size) sampling procedures, based on the estimated sizes of the enumeration areas from the 1999 Population Census.

Listing and Mapping Activities

Since the sample frame (the 1999 Population Census) was not up to date, household lists in all selected enumeration areas were updated prior to the selection of households. For this purpose, listing and mapping teams were formed, who visited each enumeration area, and listed the occupied households. The households were stratified into two, one having a child below 3 years and the other without a child below 3 years.

The listing and mapping teams were oriented in a 3 day training program in Embu, which include class room sessions and field practice. The training was facilitated by experts from KNBS and UNICEF. The district listing and mapping team consists of 3 teams; each team has a lister and a mapper. The teams were supervised by the District Statistical Officer (DSO) on a daily basis, who also attended the 3 days training program. One team was given two days to list an EA[8] and segmentation was allowed for larger EAs with more than 200 households.

Selection of Households

Lists of households were prepared by the listing teams in the field for each enumeration area. The households were grouped into two stratums based on whether the household has a child below 3 years or not. The households were then sequentially numbered from 1 to n_1 and n_2, where n_1 is the total number of households in stratum-1 (i.e., with a child below 3 years) and n_2 is the total number of households in stratum-2 (i.e., with out a child below 3 years) ($n_1 + n_2$ is the total number of households in each enumeration area) at the District Statistical Office, where selection of 16 households from stratum-1 and 8 households from straum-2 were carried out using systematic selection procedures using a random start.

[8] For all sampled EAs, both EA and Sub-location maps were developed by the cartography division of KNBS. These maps were provided to the listing and mapping teams to identify the boundaries of EA's accurately and also to map the structures in them.

Calculation of Sample Weights

The Mbeere Multiple Indicator Cluster Survey sample is not self-weighted at cluster level due to cluster level stratification. Therefore, for separate weights were calculated for each of the stratums within a cluster and they were normalized at the district level. The sample weight or multiplier computation formula is given below:

$$\frac{Zd}{nd} \; X \; \frac{1}{zdi} \; X \; sdi \; X \; \frac{Hdji}{hdji}$$

Where,
Zd = total population of the district 'd',
nd = total number of clusters in district 'd',
zdi = number of households in the ith cluster of district 'd',
sdi = number of segments in the ith cluster of district 'd',
$Hdji$ = total number of households listed in the jth stratum of ith cluster in the district 'd', and
$hdji$ = number of households surveyed in the jth stratum of ith cluster in the district 'd'.

As mentioned earlier, 50 clusters were selected from the Mbeere district 2009 Census EA list using the PPS sampling methodology. However, we have computed final multipliers after combining 4-5 clusters because of small sample size in some of the cluster level stratums.

These weights were then standardized (or normalized), one purpose of which is to make the sum of the interviewed sample units equal the total sample size at the district level. Normalization is performed by multiplying the aforementioned unadjusted weights by the ratio of the number of completed households to the total unadjusted weighted number of households. A similar standardization procedure was followed in obtaining standardized weights for the women's and under-5's questionnaires. For the anthropometry additional weights were computed using the non-response for anthropometry section.

Sample weights were appended to all data sets and analyses were performed by weighting each household, woman or under-5 with these sample weights.

Appendix B: List of Personnel Involved in the Survey

Project Director
Mr. A. K. M. Kilele, Director General, KNBS

Technical Co-ordinators
Mr. James Gatungu, KNBS
Mr. Christopher Omolo, KNBS

Cluster Development Co-ordinator
Mr. Robert Buluma

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Enumerators
Anastacia Gacheri Matu
Joyce Wanjiku Kiarie
Bernard Njagi Lucy
Faith Wanjiku Kinyua
Gideon Mutisya Mwaniki
Bernard Ngoroi Kiura

Data Collection Co-ordinator
Mr. Anthony Mugane

Supervisors
Susan Wangari Kagema
Eustace Mbai Konge

Field Editors
Charity Wangari Mwangi
Eliza Waithera Wanjiru

Research Assistants
Meckson Kinyua Musyoka
Sophia Wangari Mburu
Boniface Gichemi
Everline Wangari Njeru
Jane Nduta Njagi
Catherine Wairimu Karungaru

Appendix C: Estimates of Sampling Errors

The sample of respondents selected in the Mbeere Multiple Indicator Cluster Survey is only one of the samples that could have been selected from the same population, using the same design and size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. The extent of variability is not known exactly, but can be estimated statistically from the survey results.

The following sampling error measures are presented in this appendix for each of the selected indicators:

- Standard error (*se*): Sampling errors are usually measured in terms of standard errors for particular indicators (means, proportions etc). Standard error is the square root of the variance. The Taylor linearization method is used for the estimation of standard errors.
- Coefficient of variation (*se*/*r*) is the ratio of the standard error to the value of the indicator
- Design effect (*deff*) is the ratio of the actual variance of an indicator, under the sampling method used in the survey, to the variance calculated under the assumption of simple random sampling. The square root of the design effect (*deft*) is used to show the efficiency of the sample design. A *deft* value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a *deft* value above 1.0 indicates the increase in the standard error due to the use of a more complex sample design.
- Confidence limits are calculated to show the interval within which the true value for the population can be reasonably assumed to fall. For any given statistic calculated from the survey, the value of that statistics will fall within a range of plus or minus two times the standard error (p + 2.*se* or p – 2.*se*) of the statistic in 95 percent of all possible samples of identical size and design.

For the calculation of sampling errors from MICS data, SPSS Version 14 Complex Samples module has been used, except for the under-five mortality and infant mortality, where CSPro program is used. The results are shown in the tables that follow. In addition to the sampling error measures described above, the tables also include weighted and unweighted counts of denominators for each indicator.

Sampling errors are calculated for indicators of primary interest at the district level. All indicators presented here are in the form of proportions. Table SE.1 shows the list of indicators for which sampling errors are calculated, including the base population (denominator) for each indicator. Tables SE.2 to SE.9 show the calculated sampling errors.

	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Population Size	Un-weighted Count	Confidence limits	
Iodized salt consumption	0.9792	0.00518	0.005	1.489	1.220	612	1,129	0.969	0.990
Child discipline	0.9114	0.01641	0.018	2.873	1.695	415	863	0.879	0.944

	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Population Size	Un-weighted Count	Confidence limits	
Use of improved drinking water sources	0.2752	0.03835	0.139	39.472	6.283	2,673	5,354	0.198	0.352
Use of improved sanitation facilities	0.2950	0.02460	0.083	15.573	3.946	2,673	5,354	0.246	0.344
Net primary school attendance rate	0.9208	0.00911	0.010	1.255	1.120	555	1,104	0.903	0.939
Net secondary school attendance rate	0.2357	0.02142	0.091	1.111	1.054	252	437	0.193	0.278
Primary completion rate	0.0258	0.01744	0.677	1.466	1.211	62	122	-0.009	0.061
Child labour	0.2390	0.02314	0.097	4.220	2.054	715	1,434	0.193	0.285
Prevalence of orphans	0.0622	0.00975	0.157	4.653	2.157	1,303	2,856	0.043	0.082
Prevalence of vulnerable children	0.0551	0.00678	0.123	2.522	1.588	1,303	2,856	0.042	0.069

	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Population Size	Un-weighted Count	Confidence limits	
Skilled attendant at delivery	0.6254	0.02780	0.044	1.570	1.253	168	477	0.570	0.681
Antenatal care	0.9682	0.00919	0.009	1.304	1.142	168	477	0.950	0.987
Contraceptive prevalence	0.6123	0.03102	0.051	3.124	1.768	376	772	0.550	0.674
Adult literacy	0.8571	0.02348	0.027	1.994	1.412	240	444	0.810	0.904
Prevalence of FGM/C	0.5970	0.02144	0.036	2.207	1.485	617	1,156	0.554	0.640
Marriage before age 18	0.1506	0.02870	0.191	1.571	1.254	114	245	0.093	0.208
Comprehensive knowledge about HIV prevention among young people	0.4648	0.01824	0.039	1.545	1.243	617	1,156	0.428	0.501
Attitudes towards people with HIV/AIDS	0.1702	0.02140	0.126	3.728	1.931	616	1,151	0.127	0.213
Women who have been tested for HIV	0.5282	0.02219	0.042	2.282	1.511	617	1,156	0.484	0.573
Knowledge of mother-to-child transmission of HIV	0.4849	0.01529	0.032	1.081	1.040	617	1,156	0.454	0.515

	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Population Size	Un-weighted Count	Confidence limits	
Underweight prevalence	0.2742	0.01689	0.062	1.526	1.235	558	1,066	0.240	0.308
Tuberculosis immunization coverage	0.9881	0.00704	0.007	1.092	1.045	121	260	0.974	1.002
Polio immunization coverage	0.9155	0.01675	0.018	0.939	0.969	121	260	0.882	0.949
Immunization coverage for DPT	0.9646	0.01092	0.011	0.905	0.951	121	260	0.943	0.986
Measles immunization coverage	0.9414	0.01606	0.017	1.211	1.101	121	260	0.909	0.974
Fully immunized children	0.8557	0.02417	0.028	1.225	1.107	121	260	0.807	0.904
Acute respiratory infection in last two weeks	0.1420	0.01576	0.111	2.224	1.491	576	1,092	0.110	0.173
Antibiotic treatment of suspected pneumonia	0.5379	0.06686	0.124	2.554	1.598	82	143	0.404	0.672
Diarrhoea in last two weeks	0.1397	0.01324	0.095	1.592	1.262	576	1,092	0.113	0.166
Received ORT or increased fluids and continued feeding	0.2456	0.03316	0.135	0.949	0.974	80	161	0.179	0.312
Fever in last two weeks	0.2082	0.01719	0.083	1.956	1.399	576	1,092	0.174	0.243
Antimalarial treatment	0.4680	0.03855	0.082	1.349	1.162	120	227	0.391	0.545
Support for learning	0.3728	0.02204	0.059	2.266	1.505	576	1,092	0.329	0.417
Birth registration	0.5970	0.02612	0.044	3.094	1.759	576	1,092	0.545	0.649

Appendix D: Data Quality Tables

Table DQ.2: Age distribution of eligible and interviewed women, Mbeere District

		Household population of women age 10-54	Interviewed women age 15-49		4
		Number	Number	Percent	Percentage of eligible women interviewed
Age	10-14	340	.	.	.
	15-19	269	206	19.9	76.5
	20-24	230	194	18.7	84.1
	25-29	184	176	17.0	95.5
	30-34	157	149	14.5	95.2
	35-39	108	105	10.1	97.1
	40-44	125	122	11.8	97.4
	45-49	82	82	8.0	100.0
	50-54	97	.	.	.
6	15-49	1155	1033	100.0	89.4

Appendix E: MICS Indicators - Numerators and Denominators

INDICATOR		NUMERATOR	DENOMINATOR
1	Under-five mortality rate	Probability of dying by exact age 5 years	
2	Infant mortality rate	Probability of dying by exact age 1 year	
3	Maternal mortality ratio	Number of deaths of women from pregnancy-related causes in a given year	Number of live births in the year (expressed per 100,000 births)
4	Skilled attendant at delivery	Number of women aged 15-49 years with a birth in the 2 years preceding the survey that were attended during childbirth by skilled health personnel	Total number of women surveyed aged 15-49 years with a birth in the 2 years preceding the survey
5	Institutional deliveries	Number of women aged 15-49 years with a birth in the 2 years preceding the survey that delivered in a health facility	Total number of women surveyed aged 15-49 years with a birth in 2 years preceding the survey
6	Underweight prevalence	Number of children under age five that fall below minus two standard deviations from the median weight for age of the NCHS/WHO standard (moderate and severe); number that fall below minus three standard deviations (severe)	Total number of children under age five that were weighed
7	Stunting prevalence	Number of children under age five that fall below minus two standard deviations from the median height for age of the NCHS/WHO standard (moderate and severe); number that fall below minus three standard deviations (severe)	Total number of children under age five measured
8	Wasting prevalence	Number of children under age five that fall below minus two standard deviations from the median weight for height of the NCHS/WHO standard (moderate and severe); number that fall below minus three standard deviations (severe)	Total number of children under age five weighed and measured
9	Low-birth weight infants	Number of last live births in the 2 years preceding the survey weighing below 2,500 grams	Total number of last live births in the 2 years preceding the survey
10	Infants weighed at birth	Number of last live births in the 2 years preceding the survey that were weighed at birth	Total number of last live births in the 2 years preceding the survey
11	Use of improved drinking water sources	Number of household members living in households using improved sources of drinking water	Total number of household members in households surveyed
12	Use of improved sanitation facilities	Number of household members using improved sanitation facilities	Total number of household members in households surveyed
13	Water treatment	Number of household members using water that has been treated	Total number of household members in households surveyed

INDICATOR		NUMERATOR	DENOMINATOR
14	Disposal of child's faeces	Number of children under age three whose (last) stools were disposed of safely	Total number of children under age three surveyed
15	Exclusive breastfeeding rate	Number of infants aged 0-5 months that are exclusively breastfed	Total number of infants aged 0-5 months surveyed
16	Continued breastfeeding rate	Number of infants aged 12-15 months, and 20-23 months, that are currently breastfeeding	Total number of children aged 12-15 months and 20-23 months surveyed
17	Timely complementary feeding rate	Number of infants aged 6-9 months that are receiving breast milk and complementary foods	Total number of infants aged 6-9 months surveyed
18	Frequency of complementary feeding	Number of infants aged 6-11 months that receive breast milk and complementary food at least the minimum recommended number of times per day (two times per day for infants aged 6-8 months, three times per day for infants aged 9-11 months)	Total number of infants aged 6-11 months surveyed
19	Adequately fed infants	Number of infants aged 0-11 months that are appropriately fed: infants aged 0-5 months that are exclusively breastfed and infants aged 6-11 months that are breastfed and ate solid or semi-solid foods the appropriate number of times (see above) yesterday	Total number of infants aged 0-11 months surveyed
20	Antenatal care	Number of women aged 15-49 years that were attended at least once during pregnancy in the 2 years preceding the survey by skilled health personnel	Total number of women surveyed aged 15-49 years with a birth in the 2 years preceding the survey
21	Contraceptive prevalence	Number of women currently married or in union aged 15-49 years that are using (or whose partner is using) a contraceptive method (either modern or traditional)	Total number of women aged 15-49 years that are currently married or in union
22	Antibiotic treatment of suspected pneumonia	Number of children aged 0-59 months with suspected pneumonia in the previous 2 weeks receiving antibiotics	Total number of children aged 0-59 months with suspected pneumonia in the previous 2 weeks
23	Care-seeking for suspected pneumonia	Number of children aged 0-59 months with suspected pneumonia in the previous 2 weeks that are taken to an appropriate health provider	Total number of children aged 0-59 months with suspected pneumonia in the previous 2 weeks
24	Solid fuels	Number of residents in households that use solid fuels (wood, charcoal, crop residues and dung) as the primary source of domestic energy to cook	Total number of residents in households surveyed
25	Tuberculosis immunization coverage	Number of children aged 12-23 months receiving BCG vaccine before their first birthday	Total number of children aged 12-23 months surveyed
26	Polio immunization coverage	Number of children aged 12-23 months receiving OPV3 vaccine before their first birthday	Total number of children aged 12-23 months surveyed

INDICATOR		NUMERATOR	DENOMINATOR
27	Immunization coverage for diphtheria, pertussis and tetanus (DPT)	Number of children aged 12-23 months receiving DPT3 vaccine before their first birthday	Total number of children aged 12-23 months surveyed
28	Measles immunization coverage	Number of children aged 12-23 months receiving measles vaccine before their first birthday	Total number of children aged 12-23 months surveyed
29	Hepatitis B immunization coverage	Number of children aged 12-23 months immunized against hepatitis before their first birthday	Total number of children aged 12-23 months surveyed
30	Yellow fever immunization coverage	Number of children aged 12-23 months immunized against yellow fever before their first birthday	Total number of children aged 12-23 months surveyed
31	Fully immunized children	Number of children aged 12-23 months receiving DPT1-3, OPV-1-3, BCG and measles vaccines before their first birthday	Total number of children aged 12-23 months surveyed
32	Neonatal tetanus protection	Number of mothers with live births in the previous year that were given at least two doses of tetanus toxoid (TT) vaccine within the appropriate interval prior to giving birth	Total number of women surveyed aged 15-49 years with a birth in the year preceding the survey
33	Use of oral Rehydration therapy (ORT)	Number of children aged 0-59 months with diarrhoea in the previous 2 weeks that received oral Rehydration salts and/or an appropriate household solution	Total number of children aged 0-59 months with diarrhoea in the previous 2 weeks
34	Home management of diarrhoea	Number of children aged 0-59 months with diarrhoea in the previous 2 weeks that received more fluids AND continued eating somewhat less, the same or more food	Total number of children aged 0-59 months with diarrhoea in the previous 2 weeks
35	Received ORT or increased fluids and continued feeding	Number of children aged 0-59 months with diarrhoea that received ORT (oral Rehydration salts or an appropriate household solution) or received more fluids AND continued eating somewhat less, the same or more food	Total number of children aged 0-59 months with diarrhoea in the previous 2 weeks
36	Household availability of insecticide-treated nets (ITNs)	Number of households with at least one mosquito net, either permanently treated or treated within the previous year	Total number of households surveyed
37	Under-fives sleeping under insecticide- treated nets	Number of children aged 0-59 months that slept under an insecticide-treated mosquito net the previous night	Total number of children aged 0-59 months surveyed
38	Under-fives sleeping under mosquito nets	Number of children aged 0-59 months that slept under a mosquito net the previous night	Total number of children aged 0-59 months surveyed
39	Anti-malarial treatment (under- fives)	Number of children aged 0-59 months reported to have had fever in the previous 2 weeks that were treated with an appropriate anti-malarial within 24 hours of onset	Total number of children aged 0-59 months reported to have had fever in the previous 2 weeks
40	Intermittent preventive malaria treatment (pregnant women)	Number of women receiving appropriate intermittent medication to prevent malaria (defined as at least 2 doses of SP/Fansidar) during the last pregnancy, leading to a live birth within the 2 years preceding the survey	Total number of women that have had a live birth within the 2 years preceding the survey

INDICATOR		NUMERATOR	DENOMINATOR
41	Iodized salt consumption	Number of households with salt testing 15 parts per million or more of iodine/iodate	Total number of households surveyed
42	Vitamin A supplementation (under-fives)	Number of children aged 6-59 months receiving at least one high-dose vitamin A supplement in the previous 6 months	Total number of children aged 6-59 months surveyed
43	Vitamin A supplementation (post-partum mothers)	Number of women with a live birth in the 2 years preceding the survey that received a high-dose vitamin A supplement within 8 weeks after birth	Total number of women that had a live birth in the 2 years preceding the survey
44	Content of antenatal care	Number of women with a live birth in the 2 years preceding the survey that received antenatal care during the last pregnancy	Total number of women with a live birth in the 2 years preceding the survey
45	Timely initiation of breastfeeding	Number of women with a live birth in the 2 years preceding the survey that put the newborn infant to the breast within 1 hour of birth	Total number of women with a live birth in the 2 years preceding the survey
46	Support for learning	Number of children aged 0-59 months living in households in which an adult has engaged in four or more activities to promote learning and school readiness in the past 3 days	Total number of children aged 0-59 months surveyed
47	Father's support for learning	Number of children aged 0-59 months whose father has engaged in one or more activities to promote learning and school readiness in the past 3 days	Total number of children aged 0-59 months
48	Support for learning: children's books	Number of households with three or more children's books	Total number of households surveyed
49	Support for learning: non-children's books	Number of households with three or more non-children's books	Total number of households surveyed
50	Support for learning: materials for play	Number of households with three or more materials intended for play	Total number of households surveyed
51	Non-adult care	Number of children aged 0-59 months left alone or in the care of another child younger than 10 years of age in the past week	Total number of children aged 0-59 months surveyed
52	Pre-school attendance	Number of children aged 36-59 months that attend some form of early childhood education programme	Total number of children aged 36-59 months surveyed
53	School readiness	Number of children in first grade that attended some form of pre-school the previous year	Total number of children in the first grade surveyed
54	Net intake rate in primary education	Number of children of school-entry age that are currently attending first grade	Total number of children of primary- school entry age surveyed
55	Net primary school attendance rate	Number of children of primary-school age currently attending primary or secondary school	Total number of children of primary- school age surveyed
56	Net secondary school attendance rate	Number of children of secondary-school age currently attending secondary school or higher	Total number of children of secondary-school age surveyed

INDICATOR		NUMERATOR	DENOMINATOR
57	Children reaching grade five	Proportion of children entering the first grade of primary school that eventually reach grade five	
58	Transition rate to secondary school	Number of children that were in the last grade of primary school during the previous school year that attend secondary school	Total number of children that were in the last grade of primary school during the previous school year surveyed
59	Primary completion rate	Number of children (of any age) attending the last grade of primary school (excluding repeaters)	Total number of children of primary school completion age (age appropriate to final grade of primary school) surveyed
60	Adult literacy rate	Number of women aged 15-24 years that are able to read a short simple statement about everyday life	Total number of women aged 15-24 years surveyed
61	Gender parity index	Proportion of girls in primary and secondary education	Proportion of boys in primary and secondary education
62	Birth registration	Number of children aged 0-59 months whose births are reported registered	Total number of children aged 0-59 months surveyed
63	Prevalence of female genital mutilation/cutting (FGM/C)	Number of women aged 15-49 years that reported undergoing any form of genital mutilation/cutting	Total number of women aged 15-49 years surveyed
64	Prevalence of extreme form of FGM/C	Number of women aged 15-49 years that reported undergoing an extreme form of genital mutilation/cutting (such as infibulation)	Total number of women aged 15-49 years surveyed
65	Prevalence of FGM/C among daughters	Number of women aged 15-49 years that reported that at least one daughter had undergone female genital mutilation/cutting	Total number of women aged 15-49 years surveyed that have at least one living daughter
66	Approval for FGM/C	Number of women aged 15-49 years favouring the continuation of female genital mutilation/cutting	Total number of women aged 15-49 years surveyed
67	Marriage before age 15 and age 18	Number of women that were first married or in union by the exact age of 15 and the exact age of 18, by age groups	Total number of women aged 15-49 years and 20-49 years surveyed, by age groups
68	Young women aged 15-19 years currently married or in union	Number of women aged 15-19 years currently married or in union	Total number of women aged 15-19 years surveyed
69	Spousal age difference	Number of women married/in union aged 15-19 years and 20-24 years with a difference in age of 10 or more years between them and their current spouse	Total number of women aged 15-19 and 20-24 years surveyed that are currently married or in union
70	Polygyny	Number of women in a polygynous union	Total number of women aged 15-49 years surveyed that are currently married or in union
71	Child labour	Number of children aged 5-14 years that are involved in child labour	Total number of children aged 5-14 years surveyed

INDICATOR		NUMERATOR	DENOMINATOR
72	Labourer students	Number of children aged 5-14 years involved in child labour activities that attend school	Total number of children aged 5-14 years involved in child labour activities
73	Student labourers	Number of children aged 5-14 years attending school that are involved in child labour activities	Total number of children aged 5-14 years attending school
74	Child discipline	Number of children aged 2-14 years that (1) experience only non-violent aggression, (2) experience psychological aggression as punishment, (3) experience minor physical punishment, (4) experience severe physical punishment	Total number of children aged 2-14 years selected and surveyed
75	Prevalence of orphans	Number of children under age 18 with at least one dead parent	Total number of children under age 18 surveyed
76	Prevalence of vulnerable children	Number of children under age 18 that have a chronically ill parent, that live in a household where an adult aged 18-59 years has died in the past year, or that live in a household where an adult aged 18-59 years has been chronically ill in the past year	Total number of children under age 18 surveyed
77	School attendance of orphans versus non-orphans	Proportion of double orphans (both mother and father dead) aged 10-14 years attending school	Proportion of children aged 10-14 years, both of whose parents are alive, that are living with at least one parent and are attending school
78	Children's living arrangements	Number of children aged 0-17 years not living with a biological parent	Total number of children aged 0-17 years surveyed
79	Malnutrition among children orphaned and made vulnerable by HIV/AIDS	Proportion of orphaned or vulnerable children under age five that are moderately or severely underweight, of all orphaned and vulnerable children under age five that are weighed	Proportion of children not classified as orphaned or vulnerable under age five that are moderately or severely underweight, of all children not classified as orphaned or vulnerable under age five that are weighed
80	Early sex among children orphaned and made vulnerable by HIV/AIDS	Proportion of orphaned and vulnerable children aged 15-17 years that had sex before age 15, of all orphaned and vulnerable children aged 15-17 years surveyed	Proportion of children not classified as orphaned or vulnerable aged 15-17 years that had sex before age 15, of all children not classified as orphaned or vulnerable aged 15-17 years surveyed
81	External support to children orphaned and made vulnerable by HIV/AIDS	Number of orphaned and vulnerable children under age 18 whose households received free basic external support in caring for the child	Number of orphaned and vulnerable children under age 18 surveyed
82	Comprehensive knowledge about HIV prevention among young people	Number of women aged 15-24 years that correctly identify two ways of avoiding HIV infection and reject three common misconceptions about HIV transmission	Total number of women aged 15-24 years surveyed
83	Condom use with non-regular partners	Number of women aged 15-24 years reporting the use of a condom during sexual intercourse with their last non-marital, non-cohabiting sex partner in the previous 12 months	Total number of women aged 15-24 years surveyed that had a non-marital, non-cohabiting partner in the previous 12 months

INDICATOR		NUMERATOR	DENOMINATOR
84	Age at first sex among young people	Number of women aged 15-24 years that have had sex before age 15	Total number of women aged 15-24 surveyed
85	Higher risk sex in the last year	Number of sexually active women aged 15-24 years that have had sex with a non-marital, non-cohabitating partner in the previous 12 months	Total number of women aged 15-24 that were sexually active in the previous 12 months
86	Attitude towards people with HIV/AIDS	Number of women expressing acceptance on all four questions about people with HIV or AIDS	Total number of women surveyed
87	Women who know where to be tested for HIV	Number of women that state knowledge of a place to be tested	Total number of women surveyed
88	Women who have been tested for HIV	Number of women that report being tested for HIV	Total number of women surveyed
89	Knowledge of mother-to-child transmission of HIV	Number of women that correctly identify all three means of vertical transmission	Total number of women surveyed
90	Counselling coverage for the prevention of mother-to-child transmission of HIV	Number of women that gave birth in the previous 24 months and received antenatal care reporting that they received counselling on HIV/AIDS during this care	Total number of women that gave birth in the previous 24months surveyed
91	Testing coverage for the prevention of mother-to-child transmission of HIV	Number of women that gave birth in the previous 24months and received antenatal care reporting that they received the results of an HIV test during this care	Total number of women that gave birth in the previous 24 months surveyed
92	Age-mixing among sexual partners	Number of women aged 15-24 years that had sex in the past 12 months with a partner who was 10 or more years older than they were	Total number of sexually active women aged 15-24 years surveyed
93	Security of tenure	Number of household members living in urban households that lack formal documentation for their residence or that feel at risk of eviction	Number of urban household members in households surveyed
94	Durability of housing	Number of household members living in urban dwellings that are not considered durable	Number of urban household members in households surveyed
95	Slum household	Number of household members living in urban slums	Number of household members in urban households surveyed
96	Source of supplies	Number of children (or households) for whom supplies were obtained from public providers, presented separately for each type of supply: insecticide-treated mosquito nets, oral Rehydration salts, antibiotics and anti-malarials	Total number of children (or households) for whom supplies were obtained
97	Cost of supplies	Median cost of supplies obtained, presented separately for each type of supply and whether sourced from public or private providers: insecticide-treated mosquito nets, oral Rehydration salts, antibiotics and anti-malarials.	Total number of children (or households) for whom supplies were obtained
98	Unmet need for family planning	Number of women that are currently married or in union that are fecund and want to space their births or limit the number of children they have and that are not currently using contraception	Total number of women interviewed that are currently married or in union

INDICATOR		NUMERATOR	DENOMINATOR
99	Demand satisfied for family planning	Number of women currently married or in union that are currently using contraception	Number of women currently married or in union that have an unmet need for contraception or that are currently using contraception
100	Attitudes towards domestic violence	Number of women that consider that a husband/partner is justified in hitting or beating his wife in at least one of the following circumstances: (1) she goes out without telling him, (2) she neglects the children, (3) she argues with him, (4) she refuses sex with him, (5) she burns the food	Total number of women surveyed
101	Child disability	Number of children aged 2-9 years with at least one of nine reported disabilities: (1) delay in sitting, standing or walking, (2) difficulty seeing, either in the daytime or at night, (3) appears to have difficulty hearing, (4) difficulty in understanding instructions, (5) difficulty walking or moving arms or has weakness or stiffness of limbs, (6) has fits, becomes rigid, loses consciousness, (7) does not learn to do things like other children his/her age, (8) cannot speak or cannot be understood in words, (9) appears mentally backward, dull or slow	Total number of children aged 2-9 surveyed







FORM-A: HOUSEHOLD

H1. Identification — *ENGLISH*

#	Question	Options
HH-A	Province Name & Code _____	☐
HH-B	District Name & Code _____	☐☐
HH1	Cluster Name & Number ☐☐	HH-C Stratum [Child < 3 = 1/Other = 2] ☐
HH2	HH No.	☐☐☐
HH3	Interviewer's Name & No. _____	☐☐☐
HH4	Supervisor Name & No. _____	☐☐☐
HH5	Day/Month/Year of Interview	☐☐/☐☐/☐☐☐☐
HH6	Urban/Rural (Urban=1, Rural=2)	☐
HH7	Name of the Head of the HH (To be filled-in after completing Section H.2)	_____
HH8 to HH14 be filled-in after all questions for the HH have been completed		
HH8	Result of HH interview	Completed ..... 1 Not at home ..... 2 Refused ..... 3 HH not found/destroyed ..... 4 Other (*specify*_____) .. 6
HH9	Respondent to HH Form: Name: _____	Line No.: ☐☐
HH10	Total No. of HH members	☐☐
HH11	No. of women 15-49 eligible ☐☐	HH12 No. of women 15-49 forms completed ☐☐
HH13	No. of children < 5 eligible ☐☐	HH14 No. of children < 5 forms completed ☐☐
HH16	Editor: Name and Code _____ ☐☐☐	HH17 Data Entry: Name and Code _____ ☐☐

Introduction/Consent

HELLO. MY NAME IS (.....) AND I AM WORKING WITH THE KENYA NATIONAL BUREAU OF STATISTICS (KNBS), NAIROBI. WE ARE DOING A SURVEY TO COLLECT INFORMATION ABOUT FAMILY HEALTH AND EDUCATION, FOCUSING ON CHILDREN AND WOMEN, WITH UNICEF SUPPORT. I WOULD LIKE TO TALK TO YOU ABOUT THIS. THE INTERVIEW WILL TAKE ABOUT 30 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND EVENTUALLY BE ANONYMOUS. DURING THIS TIME I WOULD LIKE TO SPEAK WITH THE HOUSEHOLD HEAD AND MOTHER OR OTHERS WHO TAKE CARE OF CHILDREN IN THE HOUSEHOLD.

THE INFORMATION YOU PROVIDE WILL HELP THE GOVERNMENT AND DEVELOPMENT AGENCIES IN PLANNING AND IMPLEMENTING DEVELOPMENTAL PROGRAMS.

MAY I START THE INTERVIEW NOW?

H.2: HH Member Listing — HL

List the head of the HH in line 01. List all HH members (HL2), their relationship to the HH head (HL3), and their sex (HL4)
Then ask: ARE THERE ANY OTHERS WHO LIVE HERE, EVEN IF THEY ARE NOT AT HOME NOW? THESE MAY INCLUDE CHILDREN IN SCHOOL OR AT WORK. If yes, complete listing.

Then, ask questions starting with HL5 for each person at a time. Add a continuation sheet if there is more than 15 members. Tick here if continuation sheet used ☐

					Eligible for :			If age 18-59	For children age 0-17 year ask HL9 to HL12A					
					Women Interview	Child Labor	Under-5 Interview							
HL1 LINE NO.	HL2 FIRST, PLEASE TELL ME THE NAME OF EACH PERSON WHO USUALLY LIVES IN THIS HOUSEHOLD, STARTING WITH THE HEAD OF THE HH?	HL3 WHAT IS THE RELATION-SHIP OF (name) TO THE HEAD OF THE HH?	HL4 IS (name) MALE OR FEMALE? 1 MALE 2 FEMALE	HL5 HOW OLD IS (name)? HOW OLD WAS (name) ON HIS/HER LAST BIRTHDAY? [record in completed years] 98=DK*	HL6 [Circle line no. if woman is age 15-49]	HL7 [For child age 5-14 years] WHO IS THE MOTHER OR PRIMARY CARETAKER OF (name)? [record line no. of mother/ caretaker]	HL8 [For child < 5] WHO IS THE MOTHER OR PRIMARY CARETAKER OF (name)? [record line no. of mother/ caretaker]	HL8A HAS (name) BEEN VERY SICK FOR AT LEAST 3 MONTHS DURING THE PAST 12 MONTHS?	HL9 IS (name's) NATURAL MOTHER ALIVE? 1-YES 2 - NO ⇘ HL11 8 - DK ⇘ HL11	HL10 [If alive:] DOES (name's) NATURAL MOTHER LIVE IN THIS HH? [Record line no. of mother or 00 for 'no']	HL10A [If '00' in HL10] HAS (name's) MOTHER BEEN VERY SICK FOR AT LEAST 3 MONTHS IN THE PAST 12 MONTHS	HL11 IS (name's) NATURAL FATHER ALIVE? 1 YES 2 - NO ⇘ NEXT LINE 8 - DK ⇘ NEXT LINE	HL12 [If alive:] DOES (name's) NATURAL FATHER LIVE IN THIS HH? [Record line no. of father or 00 for 'no']	HL12A [If '00' in HL12] HAS (name's) FATHER BEEN VERY SICK FOR AT LEAST 3 MONTHS IN THE PAST 12 MONTHS
Line	Name	Relation	M F	Age	15-49	Mother/CT	Mother/CT	Y N DK	Y N DK	Mother	Y N DK	Y N DK	Father	Y N DK
01		0 1	1 2	☐☐	01	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
02		☐☐	1 2	☐☐	02	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
03		☐☐	1 2	☐☐	03	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
04		☐☐	1 2	☐☐	04	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
05		☐☐	1 2	☐☐	05	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
06		☐☐	1 2	☐☐	06	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
07		☐☐	1 2	☐☐	07	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
08		☐☐	1 2	☐☐	08	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
09		☐☐	1 2	☐☐	09	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8

					Eligible for :			If age 18-59	For children age 0-17 year ask HL9 to HL12A					
HL1 LINE NO.	HL2 FIRST, PLEASE TELL ME THE NAME OF EACH PERSON WHO USUALLY LIVES IN THIS HOUSEHOLD, STARTING WITH THE HEAD OF THE HH?	HL3 WHAT IS THE RELATION-SHIP OF (name) TO THE HEAD OF THE HH?	HL4 IS (name) MALE OR FEMALE? 1 MALE 2 FEMALE	HL5 HOW OLD IS (name)? HOW OLD WAS (name) ON HIS/HER LAST BIRTHDAY? [record in completed years] 98=DK*	HL6 [Circle line no. if woman is age 15-49]	HL7 [For child age 5-14 years] WHO IS THE MOTHER OR PRIMARY CARETAKER OF (name)? [record line no. of mother/ caretaker]	HL8 [For child < 5] WHO IS THE MOTHER OR PRIMARY CARETAKER OF (name)? [record line no. of mother/ caretaker]	HL8A HAS (name) BEEN VERY SICK FOR AT LEAST 3 MONTHS DURING THE PAST 12 MONTHS?	HL9 IS (name's) NATURAL MOTHER ALIVE? 1-YES 2 - NO ⇨ HL11 8 - DK ⇨ HL11	HL10 [If alive:] DOES (name's) NATURAL MOTHER LIVE IN THIS HH? [Record line no. of mother or 00 for 'no']	HL10A [If '00' in HL10] HAS (name's) MOTHER BEEN VERY SICK FOR AT LEAST 3 MONTHS IN THE PAST 12 MONTHS	HL11 IS (name's) NATURAL FATHER ALIVE? 1 YES 2 - NO ⇨ NEXT LINE 8 - DK ⇨ NEXT LINE	HL12 [If alive:] DOES (name's) NATURAL FATHER LIVE IN THIS HH? [Record line no. of father or 00 for 'no']	HL12A [If '00' in HL12] HAS (name's) FATHER BEEN VERY SICK FOR AT LEAST 3 MONTHS IN THE PAST 12 MONTHS
Line	Name	Relation	M F	Age	15-49	Mother/CT	Mother/CT	Y N DK	Y N DK	Mother	Y N DK	Y N DK	Father	Y N DK
10		☐☐	1 2	☐☐	10	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
11		☐☐	1 2	☐☐	11	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
12		☐☐	1 2	☐☐	12	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
13		☐☐	1 2	☐☐	13	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
14		☐☐	1 2	☐☐	14	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
15		☐☐	1 2	☐☐	15	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
ARE THERE ANY OTHER PERSONS LIVING HERE - EVEN IF THEY ARE NOT MEMBERS OF YOUR FAMILY OR DO NOT HAVE PARENTS LIVING IN THIS HH? INCLUDING CHILDREN AT SCHOOL OR WORK? [If yes, insert child's name and complete the information. Fill in the totals below:]														
*HL5: Ascertain age for all persons below 60 years; Code '00' for children below 1 year and '97' for 97+ years.					Women 15-49	Children 5-14	Children under 5	Very sick (1)	Mother dead (2)		Mother sick (1)	Father dead (2)		Father sick (1)
TOTALS					☐☐	☐☐	☐☐	☐☐	☐☐		☐☐	☐☐		☐☐

Codes for HL3 : Relationship to the Head of HH:

01 - Head
02 - Wife or Husband
03 - Son or Daughter
04 - Son-in-law or daughter-in-law
05 - Grand child
06 - Parent
07 - Parent-in-law
08 - Brother or Sister
09 - Brother-in-law or sister-in-law
10 - Uncle/Aunt
11 - Niece/Nephew by blood
12 - Niece/Nephew by marriage
13 - Other relative
14 - Adopted/Foster/Step child
15 - Not related
98 - Don't know

H.3: Education (For all age 5 and above) ED

For members age 5 and above							Members age 5-24 years only								
ED1 Line No.	ED1A Name	ED1B How old Is (name)? How old was (name) on his/her last birthday? [Record completed years]	ED2 HAS (name) EVER ATTENDED SCHOOL OR PRE-SCHOOL? 1 Yes 2 No ⇨ Next Line		ED3 WHAT IS THE HIGHEST LEVEL OF SCHOOL (name) ATTENDED? WHAT IS THE HIGHEST CLASS (name) COMPLETED AT THIS LEVEL? If < 1 grade, enter 00		ED4 DURING THIS (2008) SCHOOL YEAR, DID (name) ATTEND SCHOOL OR PRE-SCHOOL ANY TIME? 1 Yes 2 No ⇨ED7		ED5 SINCE LAST (DAY OF THE WEEK), HOW MANY DAYS DID (name) ATTEND SCHOOL? [Record no. of days]	ED6 DURING THIS SCHOOL YEAR 2008, WHICH LEVEL AND CLASS IS (name) ATTENDING?		ED7 DID (name) ATTEND SCHOOL OR PRESCHOOL AT ANY TIME DURING THE PREVIOUS SCHOOL YEAR 2007? 1 Yes 2 No ⇨ Next Line 8 DK ⇨Next Line			ED8 DURING THAT PREVIOUS SCHOOL YEAR 2007, WHICH LEVEL AND CLASS DID (name) ATTENDED?	
Line	Name	Age	Y	N	Level	Grade	Y	N	Days	Level	Grade	Y	N	DK	Level	Grade
			1	2	☐	☐☐	1	2	☐	☐	☐☐	1	2	8	☐	☐☐
			1	2	☐	☐☐	1	2	☐	☐	☐☐	1	2	8	☐	☐☐
			1	2	☐	☐☐	1	2	☐	☐	☐☐	1	2	8	☐	☐☐
			1	2	☐	☐☐	1	2	☐	☐	☐☐	1	2	8	☐	☐☐
			1	2	☐	☐☐	1	2	☐	☐	☐☐	1	2	8	☐	☐☐
			1	2	☐	☐☐	1	2	☐	☐	☐☐	1	2	8	☐	☐☐
			1	2	☐	☐☐	1	2	☐	☐	☐☐	1	2	8	☐	☐☐
			1	2	☐	☐☐	1	2	☐	☐	☐☐	1	2	8	☐	☐☐
			1	2	☐	☐☐	1	2	☐	☐	☐☐	1	2	8	☐	☐☐
			1	2	☐	☐☐	1	2	☐	☐	☐☐	1	2	8	☐	☐☐

CODES FOR ED3, ED6 & ED8

0 - Pre-School
1 - Primary
2 - Post-Primary, Vocational
3 - Secondary, 'A' Level
4 - College – Middle Level
5 - University
6 - Non-standard curriculum
8 – Don't know

H.4: Water & Sanitation — WS

#	Question	Options	Skip
WS1	WHAT IS THE MAIN SOURCE OF DRINKING WATER FOR MEMBERS OF YOUR HOUSEHOLD?	**Piped water** **Piped into dwelling** ..... 11 **Piped into yard or plot** ..... 12 **Public tap/standpipe** ..... 13 **Pipe water from neighbour's house** ..... 14 **Tubewell/borehole with hand-pump** ..... 21 **Tubewell/borehole with powered pump** ..... 22 **Dug well** **Protected well** ..... 31 **Unprotected well** ..... 32 **Water from spring** **Protected spring** ..... 41 **Unprotected spring** ..... 42 **Rainwater collection** ..... 51 **Tanker-truck** ..... 61 **Cart with small tank/drum** ..... 71 **Surface water (river, stream, dam, lake, pond, canal, irrigation channel)** ..... 81 Bottled water ..... 91 **Other (specify_____)** 96	11⇨WS5 12⇨WS5 13-81 ⇨WS3 96⇨WS3
WS2	WHAT IS THE MAIN SOURCE OF WATER USED BY YOUR HOUSEHOLD FOR OTHER PURPOSES SUCH AS COOKING AND HANDWASHING?	**Piped water** **Piped into dwelling** ..... 11 **Piped into yard or plot** ..... 12 Public tap/standpipe ..... 13 Pipe water from neighbour's house ..... 14 Tubewell/borehole with hand-pump ..... 21 Tubewell/borehole with powered pump ..... 22 Dug well Protected well ..... 31 Unprotected well ..... 32 Water from spring Protected spring ..... 41 Unprotected spring ..... 42 Rainwater collection ..... 51 Tanker-truck ..... 61 Cart with small tank/drum ..... 71 Surface water (river, stream, dam, lake, pond, canal, irrigation channel) ..... 81 Other (specify_____) 96	11⇨WS5 12⇨WS5
WS3	HOW LONG DOES IT TAKE TO GO THERE, GET WATER AND COME BACK? [Code '900' for over 15+ hours]	No. of minutes ..... ☐☐☐ **Water on premises** ..... **995** Don't know 998	995⇨WS4A
WS4	WHO USUALLY GOES TO THIS SOURCE TO FETCH THE WATER FOR YOUR HH? **Probe:** IS THIS PERSON UNDER AGE 15? WHAT SEX?	Adult woman (15+ years) ..... A Adult man (15+ years) ..... B Female child (under 15) ..... C Male child (under 15) ..... D Don't know ..... Z	

H.4: Water & Sanitation — WS

#	Question	Options	Skip
WS4A	WHAT IS THE MAIN TYPE OF CONTAINER USED FOR STORING DRINKING WATER IN THIS HOUSEHOLD?	Jerry can/Narrow neck container with lid ... 1 Jerry can/Narrow neck container without lid ... 2 Open container with lid ... 3 Open container without lid ... 4 Others (specify_____) ... 6	
WS4B	DURING THE LAST 12 MONTHS, DOES THIS HOUSEHOLD RECEIVE ANY CANS/CONTAINER THROUGH FREE DISTRIBUTION?	Yes ... 1 No ... 2 Don't know ... 8	
WS5	DO YOU TREAT YOUR WATER IN ANY WAY TO MAKE IT SAFER TO DRINK?	Yes ... 1 **No ... 2** **Don't know ... 8**	 2⇨WS7 8⇨WS7
WS6	WHAT DO YOU USUALLY DO TO THE WATER TO MAKE IT SAFER TO DRINK? ANYTHING ELSE? *[Record all items mentioned]*	Boil ... A Add bleach/chlorine ... B Strain it through a cloth ... C Use water filter (ceramic, sand, composite, etc.) ... D Solar dis-infection ... E Let it stand and settle ... F Other (*specify*_____) ... X Don't know ... Z	
WS7	WHAT KIND OF TOILET FACILITY DO MEMBERS OF YOUR HOUSEHOLD USUALLY USE? **If "flush" or "pour flush":** WHERE DOES IT FLUSH TO? **[Ask for permission & observe the facility]**	<u>Flush / pour flush</u> Flush to piped sewer system ... 11 Flush to septic tank ... 12 Flush to pit (latrine) ... 13 Flush to somewhere else ... 14 Flush to unknown place/not sure/DK where to flush ... 15 <u>Pit latrine</u> Ventilated Improved Pit latrine ... 21 Pit latrine with slab ... 22 Pit latrine without slab/open pit ... 23 Pit latrine with slab & cover ... 24 Pit latrine with slab & foot rest ... 25 Pit latrine with slab, cover & foot rest ... 26 Composting toilet ... 31 Bucket ... 41 Hanging toilet/hanging latrine ... 51 **No facilities or bush or field ... 95** Other (*specify*)_____ 96	 95⇨ WS11
WS8	DO YOU SHARE THIS FACILITY WITH OTHER HHS?	Yes ... 1 **No ... 2**	 2⇨ WS10
WS9	HOW MANY HHS IN TOTAL USE THIS TOILET FACILITY?	No. of HHs (if less than 10) ... ☐ Ten or more HHs ... 10 DK ... 98	

H.4: Water & Sanitation			WS
#	Question	Options	Skip
WS10	DO YOU HAVE A HAND-WASHING FACILITY OUTSIDE THE TOILET? **[Ask for permission & observe the facility]**	Seen the facility filled with water ..... 1 Seen the facility but no water ..... 2 Not seen ..... 3 No facility 4	
WS11	HOW DO MEMBERS OF YOUR HOUSEHOLD MAINLY GET RID OF THE GARBAGE (RUBBISH)?	Dumped in street/empty plot ..... 01 Garbage burnt ..... 02 Garbage buried ..... 03 Thrown in pit ..... 04 Composted ..... 05 Community disposal point ..... 06 Regular collection by government ..... 07 Infrequent collection by government ..... 08 Pays for private collection ..... 09 Other (specify_____) 96	

H.5: Household Characteristics — HC

#	Question	Options	Skip
HC1.A	WHAT IS THE RELIGION OF THE HEAD OF THIS HH?	Catholic ..... 1 Other Christian ..... 2 Muslim ..... 3 No Religion ..... 8 Others (specify) 9	
HC1.B	WHAT IS THE MOTHER TONGUE/NATIVE LANGUAGE OF THE HEAD OF THIS HOUSEHOLD?	Kiswahili ..... 01 Embu ..... 02 Kalenjin ..... 03 Kamba ..... 04 Kikuyu ..... 05 Kisii ..... 06 Luhya ..... 07 Luo ..... 08 Maasai ..... 09 Meru ..... 10 Mijikenda ..... 11 Somali ..... 12 Other (specify_____) 96	
HC2	HOW MANY ROOMS IN THIS HH ARE USED FOR SLEEPING?	No. of rooms ..... ☐☐	
HC3	**Observe and record:** Main material of the dwelling **floor**:	Natural floor Earth/sand ..... 11 Dung ..... 12 Rudimentary floor Wood planks ..... 21 Palm/bamboo ..... 22 Finished floor Parquet or polished wood ..... 31 Vinyl or asphalt strips ..... 32 Ceramic tiles ..... 33 Cement ..... 34 Carpet ..... 35 Other *(specify*_____) .. 96	
HC4	**Observe and record:** Main material of the **roof**:	Natural roofing No Roof ..... 11 Thatch/palm leaf ..... 12 Sod ..... 13 Rudimentary Roofing Rustic mat ..... 21 Palm/bamboo ..... 22 Wood planks ..... 23 Finished roofing Metal ..... 31 Wood ..... 32 Calamine/cement fiber ..... 33 Ceramic tiles ..... 34 Cement ..... 35 Roofing shingles ..... 36 Other *(specify*_____) 96	

H.5: Household Characteristics — HC

#	Question	Options	Skip
HC5	**Observe and record:** Main material of the **walls**:	Natural walls No walls ..... 11 Cane/palm/trunks ..... 12 Mud/dirt ..... 13 Rudimentary walls Bamboo with mud ..... 21 Stone with mud ..... 22 Uncovered adobe ..... 23 Plywood ..... 24 Carton ..... 25 Reused wood ..... 26 Finished walls Cement ..... 31 Stone with lime/cement ..... 32 Bricks ..... 33 Cement blocks ..... 34 Covered adobe ..... 35 Wood planks/shingles ..... 36 Other (*specify* _____) 96	
HC6	WHAT TYPE OF FUEL DOES YOUR HH MAINLY USE FOR COOKING?	**Electricity** ..... **01** **Liquid Propane Gas (LPG)** ..... **02** **Natural gas** ..... **03** **Biogas** ..... **04** Kerosene ..... 05 Coal / Lignite ..... 06 Charcoal ..... 07 Wood ..... 08 Straw/shrubs/grass ..... 09 Animal dung ..... 10 Agricultural crop residue ..... 11 Other (*specify* _____) 96	01 ⇨ HC8 02 ⇨ HC8 03 ⇨ HC8 04 ⇨ HC8
HC7	IN THIS HH, IS FOOD COOKED ON AN OPEN FIRE, AN OPEN STOVE OR A CLOSED STOVE? **Probe for type**	Open fire ..... 1 Open stove ..... 2 **Closed stove** ..... **3** **Other (*specify* _____)** **6**	 3 ⇨ HC8 6 ⇨ HC8
HC7A	DOES THE FIRE/STOVE HAVE A CHIMNEY OR A HOOD?	Yes ..... 1 No 2	
HC8	IS THE COOKING USUALLY DONE IN THE HOUSE, IN A SEPARATE BUILDING OR OUTDOORS?	In the house ..... 1 In a separate building ..... 2 Outdoors ..... 3 Other (*specify* _____) 6	

H.5: Household Characteristics				HC
#	Question	Options		Skip
HC9	DOES YOUR HOUSEHOLD HAVE	Yes	No	
	A. ELECTRICITY?	1	2	
	B. RADIO?	1	2	
	C. TELEVISION?	1	2	
	D. MOBILE TELEPHONE?	1	2	
	E. TELEPHONE (LAND LINE)?	1	2	
	F. REFRIGERATOR?	1	2	
	G. COMPUTER?	1	2	
	H. INTERNET CONNECTION?	1	2	
HC10	DOES ANY MEMBER OF YOUR HH OWN:			
	A. WATCH?	1	2	
	B. BICYCLE?	1	2	
	C. MOTORCYCLE OR SCOOTER?	1	2	
	D. AN ANIMAL DRAWN CART?	1	2	
	E. A CAR OR TRUCK?	1	2	
	F. A BOAT WITH A MOTOR?	1	2	
HC11	DOES ANY MEMBER OF THIS HOUSEHOLD OWN ANY LAND THAT CAN BE USED FOR AGRICULTURE?	Yes ..... 1 No 2		
HC12	DOES THIS HH OWN ANY LIVESTOCK, HERDS, OR FARM ANIMALS?	Yes ..... 1 No 2		

H.6: Use of Mosquito Net — TN

#	Question	Options		Skip
TN1	DOES YOUR HOUSEHOLD HAVE ANY MOSQUITO NETS THAT CAN BE USED WHILE SLEEPING?	Yes ..... 1 No 2		 2⇨(H.7)
TN2	HOW MANY MOSQUITO NETS DOES YOUR HH HAVE? [If 7 or more nets, record '7']	Number of nets ..... ☐		
	Ask the respondent to show you the nets in the household, if more than 2, tell them to show the two recently obtained ones.	**Most Recent [Net #1]**	**Last But One [Net #2]**	
TN3	MAY I HAVE A LOOK AT THE TWO NET(S) YOU HAVE OBTAINED LAST, TO ESTABLISH THE BRAND?	Observed ..... 1 Not observed 2	Observed ..... 1 Not observed 2	
TN4	HOW MANY MONTHS AGO DID YOUR HOUSEHOLD ACQUIRE THE LAST/LAST BUT ONE MOSQUITO NET? *[If answer is "12 months" or "1 year", probe to determine if net was obtained exactly 12 months ago or earlier or later.]*	No of Months ..... ☐☐ More than 3 years ..... 95 Don't know/not sure 98	No of Months ..... ☐☐ More than 3 years ..... 95 Don't know/not sure 98	
TN5	***Observe the brand/type** of mosquito net.* *If not observed ask:* WHAT BRAND IS THE NET?	Long lasting nets **Permanet ..... 1 ⇨ TN8** **Olyset ..... 2 ⇨ TN8** Other nets Supanet ..... 3 Other(sp_____) ..... 8 Don't know 9	Long lasting nets **Permanet ..... 1 ⇨ TN8** **Olyset ..... 2 ⇨ TN8** Other nets Supanet ..... 3 Other(sp_____) ..... 8 Don't know 9	
TN6	SINCE YOU GOT THIS MOSQUITO NET, WAS IT EVER SOAKED OR DIPPED IN A LIQUID TO KILL OR REPEL MOSQUITOS?	Yes ..... 1 **No ..... 2 ⇨ TN8** **Don't know ..... 9 ⇨ TN8**	Yes ..... 1 **No ..... 2 ⇨ TN8** **Don't know ..... 9 ⇨ TN8**	
TN7	HOW MANY MONTHS AGO WAS THIS NET LAST DIPPED OR SOAKED? *[If answer is "12 months" or "1 year", probe to determine if net was dipped or soaked exactly 12 months ago or earlier or later.]*	No of Months ..... ☐☐ More than 2 years ..... 95 Don't know/not sure 98	No of Months ..... ☐☐ More than 2 years ..... 95 Don't know/not sure 98	
TN8	DID ANYONE SLEPT UNDER THIS MOSQUITO NET LAST NIGHT? **If 'yes',** WHO SLEPT UNDER THIS NET LAST NIGHT? ANY ONE ELSE? *[Record the person's line number from the household schedule]* *[If more than 4 persons slept under a net, record the details of children and women first]* *[If guest, code '77' and none, code '00']*	**Name** / **Line No** 1 ..... ☐☐ 2 ..... ☐☐ 3 ..... ☐☐ 4 ..... ☐☐	**Name** / **Line No** 1 ..... ☐☐ 2 ..... ☐☐ 3 ..... ☐☐ 4 ..... ☐☐	

H.7: Orphan-hood/Vulnerability			OV
#	Question	Options	Skip
OV1	**Check HL5 (in section H.2): Any children 0-17?** ☐ **Yes ⇨ Continue to OV2** ☐ **No ⇨ Next Section [H.10]**		
OV2	I WOULD LIKE YOU TO THINK BACK OVER THE PAST 12 MONTHS. HAS ANY USUAL MEMBER OF YOUR HH DIED IN THE LAST 12 MONTHS?	Yes ..... 1 **No 2**	2⇨OV5
OV3	(OF THOSE WHO DIED IN THE PAST 12 MONTHS) WERE ANY OF THESE PEOPLE BETWEEN THE AGES OF 18 AND 59 YEARS?	Yes ..... 1 **No 2**	2⇨OV5
OV4	(OF THOSE WHO DIED IN THE PAST 12 MONTHS AND WERE BETWEEN THE AGES OF 18 AND 59 YRS.) WERE ANY OF THESE PEOPLE SERIOUSLY ILL FOR 3 OF THE 12 MONTHS BEFORE HE/SHE DIED?	**Yes ..... 1** No 2	1⇨OV8
OV5	**Check the following in the HH Listing** **1. Check totals for HL9 and HL11** ☐ **At least one mother or father dead ⇨ OV8** ☐ **No mother or father dead** **2. Check total for HL8A** ☐ **At least one adult aged 18-59 very sick 3 of last 12 months ⇨ OV8** ☐ **No adult aged 18-59 very sick 3 of last 12 months** **3. Check totals for HL10A and HL12A** ☐ **At least one mother or father ill 3 of last 12 months ⇨ OV8** ☐ **No mother or father ill 3 of last 12 months ⇨ Go to Section H.8**		

H.7: Orphan-hood — OV

		1ST CHILD	2ND CHILD	3RD CHILD	4TH CHILD
OV8	List all children aged 0-17 Years. Record names, line numbers and ages of all children, beginning with the first child and continue in order in which listed in the HH Listing section. Use a continuation sheet if there are more than 4 children aged 0-17 years. Ask all questions for one child before moving to the next child.				
	Name (from HL2)	.....	.....	.....	.....
	Line number (from HL1)	__ __	__ __	__ __	__ __
	Age (from HL5)	__ __	__ __	__ __	__ __
OV9	I WOULD LIKE TO ASK YOU ABOUT ANY FORMAL, ORGANIZED HELP OR SUPPORT THAT YOUR HH MAY HAVE RECEIVED FOR (name) AND FOR WHICH YOU DID NOT HAVE TO PAY. BY FORMAL ORGANIZED SUPPORT I MEAN HELP PROVIDED BY SOMEONE WORKING FOR A PROGRAM. THIS PROGRAM COULD BE GOVERNMENT, PRIVATE, RELIGIOUS, CHARITY, OR COMMUNITY-BASED. REMEMBER THIS SHOULD BE SUPPORT FOR WHICH YOU DID NOT PAY.				
OV10	NOW I WOULD LIKE TO ASK YOU ABOUT THE SUPPORT YOUR HH RECEIVED FOR (name). IN THE LAST 12 MONTHS, HAS YOUR HH RECEIVED ANY MEDICAL SUPPORT FOR (name), SUCH AS MEDICAL CARE, SUPPLIES OR MEDICINE?	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8
OV11	IN THE LAST 12 MONTHS, HAS YOUR HH RECEIVED ANY EMOTIONAL OR PSYCHOLOGICAL SUPPORT FOR (name), SUCH AS COMPANIONSHIP, COUNSELING FROM A TRAINED COUNSELOR, OR SPIRITUAL SUPPORT, WHICH YOU RECEIVED AT HOME?	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV13**	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV13**	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV13**	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV13**
OV12	DID YOUR HH RECEIVE ANY OF THIS SUPPORT FOR (name), IN THE PAST 3 MONTHS?	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8
OV13	IN THE LAST 12 MONTHS, HAS YOUR HH RECEIVED ANY MATERIAL SUPPORT FOR (name), SUCH AS CLOTHING, FOOD OR FINANCIAL SUPPORT?	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV15**	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV15**	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV15**	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV15**
OV14	DID YOUR HH RECEIVE ANY OF THIS SUPPORT FOR (name), IN THE PAST 3 MONTHS?	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8
OV15	IN THE LAST 12 MONTHS, HAS YOUR HH RECEIVED ANY SOCIAL SUPPORT FOR (name), SUCH AS HELP IN HH WORK, TRAINING FOR A CAREGIVER, OR LEGAL SERVICES?	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV17**	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV17**	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV17**	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV17**
OV16	DID YOUR HH RECEIVE ANY OF THIS SUPPORT FOR (name), IN THE PAST 3 MONTHS?	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8
OV17	**Check OV8: Age of the child 5-17 Yr?**	☐ **Yes ⇨ OV18** ☐ **No ⇨ Next child**	☐ **Yes ⇨ OV18** ☐ **No ⇨ Next child**	☐ **Yes ⇨ OV18** ☐ **No ⇨ Next child**	☐ **Yes ⇨ OV18** ☐ **No ⇨ Next child**
OV18	IN THE LAST 12 MONTHS, HAS YOUR HH RECEIVED ANY SUPPORT FOR (name's) SCHOOLING, SUCH AS ALLOWANCE, FREE ADMISSION, BOOKS OR SUPPLIES?	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8

H.8: Child Labour (for 5-14 years of age only) CL

To be administered to mother/caretaker of each child in the HH age 5 through 14 years.

NOW, I WOULD LIKE TO ASK ABOUT ANY WORK CHILDREN IN THIS HH MAY DO.

CL1 Line no.	CL2 Name	CL3 DURING THE PAST WEEK, DID *(name)* DO ANY KIND OF WORK FOR SOMEONE, WHO IS NOT A MEMBER OF THIS HH? **If Yes:** FOR PAY IN CASH OR KIND? 1=Yes, for pay (cash or kind) 2=Yes, unpaid **3=No ⇨ CL5**			CL4 SINCE LAST *(day of the week)*, ABOUT HOW MANY HOURS DID *(name)* DO THIS WORK FOR SOMEONE WHO IS NOT A MEMBER OF THIS HH? *[If more than one job, include all hours at all jobs]* **Record & skip to ⇨ CL6**	CL5 AT ANY TIME DURING THE PAST YEAR, DID *(name)* DO ANY KIND OF WORK FOR SOMEONE WHO IS NOT A MEMBER OF THIS HH? **If Yes:** FOR PAY IN CASH OR KIND? 1=Yes, for pay (cash or kind) 2=Yes, unpaid 3=No			CL6 DURING THE PAST WEEK, DID *(name)* HELP WITH HH CHORES SUCH AS SHOPPING, COLLECTING FIREWOOD, CLEANING, FETCHING WATER OR CARING FOR CHILDREN? 1= Yes **2= No ⇨ CL8**		CL7 SINCE LAST *(day of the week)*, ABOUT HOW MANY HOURS DID *(name)* SPEND DOING THESE CHORES?	CL8 DURING THE PAST WEEK, DID *(name)* DO ANY OTHER FAMILY WORK (ON THE FARM OR IN A BUSINESS OR SELLING GOODS IN THE STREET?) 1=Yes **2=No ⇨Next Line**		CL9 SINCE LAST *(day of the week)*, ABOUT HOW MANY HOURS DID *(name)* DO THIS WORK?
Line No.	Name	Yes		No	No. of hours	Yes		No	Yes	No	No. of hours	Yes	No	No. of hours
		Paid	Unpaid			Paid	Unpaid							
		1	2	**3**	☐☐	1	2	3	1	**2**	☐☐	1	**2**	☐☐
		1	2	**3**	☐☐	1	2	3	1	**2**	☐☐	1	**2**	☐☐
		1	2	**3**	☐☐	1	2	3	1	**2**	☐☐	1	**2**	☐☐
		1	2	**3**	☐☐	1	2	3	1	**2**	☐☐	1	**2**	☐☐
		1	2	**3**	☐☐	1	2	3	1	**2**	☐☐	1	**2**	☐☐
		1	2	**3**	☐☐	1	2	3	1	**2**	☐☐	1	**2**	☐☐
		1	2	**3**	☐☐	1	2	3	1	**2**	☐☐	1	**2**	☐☐
		1	2	**3**	☐☐	1	2	3	1	**2**	☐☐	1	**2**	☐☐

H.9: Child Discipline CD

Review the household listing and list all children aged 2-14 years below in order according to their line number (HL1). Do not include other HH members outside of the age range 2-14 years. Record the line number, [name, sex, age, and the line number of the mother or caretaker] for each child. Then record the total number of children aged 2-14 in the box provided (CD7). (write the name, sex, age and the mother/caretaker line no. only for the eligible child)

CD1 Rank	CD2 Line No. from HL1	CD3 Name from HL2	CD4 Sex from HL4 M F	CD5 Age from HL5	CD6 Line no. of mother/ caretaker from HL7/HL8	CD7
01	__ __		1 2	__ __	__ __	
02	__ __		1 2	__ __	__ __	
03	__ __		1 2	__ __	__ __	
04	__ __		1 2	__ __	__ __	
05	__ __		1 2	__ __	__ __	
06	__ __		1 2	__ __	__ __	
07	__ __		1 2	__ __	__ __	
08	__ __		1 2	__ __	__ __	
	Total children aged 2-14 years in the HH					__ __

If there is only one child age 2-14 years in the household, then go to CD11 to administer child discipline questions.

Random Selection Of Child

Use the grid below to select one child between the ages of 2 and 14 years, if there is more than one child in that age range in the household. Look for the last digit of the household number from the cover page. This is the number of the row you should go to in the table below. Check the total number of eligible children (2-14) in CD7 above. This is the number of the column you should go to. Find the box where the row and the column meet and circle the number that appears in the box. This is the rank number of the child about whom the questions will be asked. Record the rank number in CD9 below. Finally, record the line number and name of the selected child in CD11 on the next page. Then, find the mother or primary caretaker of that child, and ask the questions, beginning with CD12.

CD8	Number of Eligible Children in the Household							
Last digit of HH. No.	1	2	3	4	5	6	7	8+
0	1	2	2	4	3	6	5	4
1	1	1	3	1	4	1	6	5
2	1	2	1	2	5	2	7	6
3	1	1	2	3	1	3	1	7
4	1	2	3	4	2	4	2	8
5	1	1	1	1	3	5	3	1
6	1	2	2	2	4	6	4	2
7	1	1	3	3	5	1	5	3
8	1	2	1	4	1	2	6	4
9	1	1	2	1	2	3	7	5
CD9	Record the rank number of the child.....							__ __

H.9: Child Discipline CD

Review the household listing and list all children aged 2-14 years below in order according to their line number (HL1). Do not include other HH members outside of the age range 2-14 years. Record the line number, [name, sex, age, and the line number of the mother or caretaker] for each child. Then record the total number of children aged 2-14 in the box provided (CD7). (write the name, sex, age and the mother/caretaker line no. only for the eligible child)

CD1 Rank	CD2 Line No. from HL1	CD3 Name from HL2	CD4 Sex from HL4 M F	CD5 Age from HL5	CD6 Line no. of mother/ caretaker from HL7/HL8	CD7
01	__ __		1 2	__ __	__ __	
02	__ __		1 2	__ __	__ __	
03	__ __		1 2	__ __	__ __	
04	__ __		1 2	__ __	__ __	
05	__ __		1 2	__ __	__ __	
06	__ __		1 2	__ __	__ __	
07	__ __		1 2	__ __	__ __	
08	__ __		1 2	__ __	__ __	
	Total children aged 2-14 years in the HH					__ __

If there is only one child age 2-14 years in the household, then go to CD11 to administer child discipline questions.

Random Selection Of Child

Use the grid below to select one child between the ages of 2 and 14 years, if there is more than one child in that age range in the household. Look for the last digit of the household number from the cover page. This is the number of the row you should go to in the table below. Check the total number of eligible children (2-14) in CD7 above. This is the number of the column you should go to. Find the box where the row and the column meet and circle the number that appears in the box. This is the rank number of the child about whom the questions will be asked. Record the rank number in CD9 below. Finally, record the line number and name of the selected child in CD11 on the next page. Then, find the mother or primary caretaker of that child, and ask the questions, beginning with CD12.

CD8	Number of Eligible Children in the Household							
Last digit of HH. No.	1	2	3	4	5	6	7	8+
0	1	2	2	4	3	6	5	4
1	1	1	3	1	4	1	6	5
2	1	2	1	2	5	2	7	6
3	1	1	2	3	1	3	1	7
4	1	2	3	4	2	4	2	8
5	1	1	1	1	3	5	3	1
6	1	2	2	2	4	6	4	2
7	1	1	3	3	5	1	5	3
8	1	2	1	4	1	2	6	4
9	1	1	2	1	2	3	7	5
CD9	Record the rank number of the child.....							__ __

H.9: Child Discipline — CD

Identify eligible child aged 2-14 in the household using the tables on the preceding page.
Request and interview the mother or primary caretaker of the selected child (identified by the line number in CD6).

#	Question	Options	Skip
CD11	Write name and line no. of the child selected for the module from CD3 and CD2, based on the rank number in CD9.	Name & Line No.: ☐☐	
CD12	ALL ADULTS USE CERTAIN WAYS TO TEACH CHILDREN THE RIGHT BEHAVIOUR OR TO ADDRESS A BEHAVIOUR PROBLEM. I WILL READ VARIOUS METHODS THAT ARE USED AND I WANT YOU TO TELL ME IF *YOU OR ANYONE ELSE IN YOUR HOUSEHOLD* HAS USED THIS METHOD WITH *(name)* IN THE PAST MONTH.		
CD12a	TOOK AWAY PRIVILEGES, FORBADE SOMETHING *(name)* LIKED OR DID NOT ALLOW HIM/HER TO LEAVE HOUSE).	Yes 1 No 2	
CD12b	EXPLAINED WHY SOMETHING (THE BEHAVIOR) WAS WRONG.	Yes 1 No 2	
CD12c	SHOOK HIM/HER.	Yes 1 No 2	
CD12d	SHOUTED, YELLED AT OR SCREAMED AT HIM/HER.	Yes 1 No 2	
CD12e	GAVE HIM/HER SOMETHING ELSE TO DO.	Yes 1 No 2	
CD12f	SPANKED, HIT OR SLAPPED HIM/HER ON THE BOTTOM WITH BARE HAND.	Yes 1 No 2	
CD12g	HIT HIM/HER ON THE BOTTOM OR ELSEWHERE ON THE BODY WITH SOMETHING LIKE A BELT, HAIRBRUSH, STICK OR OTHER HARD OBJECT.	Yes 1 No 2	
CD12h	CALLED HIM/HER DUMB, LAZY, OR ANOTHER NAME LIKE THAT.	Yes 1 No 2	
CD12i	HIT OR SLAPPED HIM/HER ON THE FACE, HEAD OR EARS.	Yes 1 No 2	
CD12j	HIT OR SLAPPED HIM/HER ON THE HAND, ARM, OR LEG.	Yes 1 No 2	
CD12k	BEAT HIM/HER UP WITH AN IMPLEMENT (HIT OVER AND OVER AS HARD AS ONE COULD).	Yes 1 No 2	
CD12l	PINCH HIM/HER.	Yes 1 No 2	
CD13	DO YOU BELIEVE THAT IN ORDER TO BRING UP (RAISE, EDUCATE) *(name)* PROPERLY, YOU NEED TO PHYSICALLY PUNISH HIM/HER?	Yes 1 No 2 Don't know/no opinion 8	

H.10: Food Relief			FR
#	Question	Options	Skip
FR1	ARE YOU REGISTERED AS A BENEFICIARY OF FOOD DISTRIBUTION PROGRAM?	Yes ..... 1 **No 2**	2⇨ FR6
FR2	HOW LONG AGO WAS THE LAST RATION?	No. of weeks ..... 1 ☐☐ No. of months ..... 2 ☐☐	
FR3	DOES THE FOOD AID MEET ALL THE FOOD NEEDS OF THE HOUSEHOLD?	Yes ..... 1 No ..... 2 Don't Know 8	
FR4	DO MEMBERS OF THE HOUSEHOLD SELL FOOD TO OBTAIN MONEY TO MEET OTHER NEEDS?	Yes ..... 1 **No ..... 2** **Don't Know 8**	2⇨ FR6 8⇨ FR6
FR5	DOES THE PRICE THE HOUSEHOLD RECEIVE FOR THIS FOOD EQUAL MARKET RATES?	Much Less ..... 1 Roughly the Same ..... 2 Much More ..... 3 Don't Know 8	
FR6	IS ANY OF YOUR CHILDREN REGISTERED IN THE CHILD FEEDING PROGRAM?	Yes ..... 1 No 2	
FR7	HAS THE HOUSEHOLD BEEN DISPLACED ANY TIME DURING THE PAST 12 MONTHS?	Yes ..... 1 No 2	

H.11: Salt Iodization — SI

#	Question	Options	Skip
SL1	WE WOULD LIKE TO CHECK WHETHER THE SALT USED IN YOUR HH IS IODIZED. MAY I SEE A SAMPLE OF THE SALT USED TO COOK THE MAIN MEAL EATEN BY MEMBERS OF YOUR HH LAST NIGHT? [Once you have examined the salt, circle number that corresponds to test outcome]	Not iodized ..... 1 **Less than 15 ppm ..... 2** **15 ppm and more ..... 3** **No salt at home ..... 6** **Salt not tested 7**	 2⇨ SL2 3⇨ SL2 3⇨ SL2 3⇨ SL2
SL1A	TYPE OF SALT	Crystal ..... 1 Powder ..... 2 Other (Specify_____) 9	
SL2	**Check HL6: Does any eligible woman age 15-49 in the HH? You should have a Form with the Woman ID filled in for each eligible woman.** ☐ **Yes ⇨ Go to WOMAN 15-49 FORM to administer the questions to the first eligible woman.** ☐ **No ⇨ Continue to SL3.**		
SL3	**Check HL8: Does any child under the age of 5 in the HH? You should have a Form with the Under-Five ID filled in for each eligible child.** ☐ **Yes ⇨ Go to CHILD < 5 FORM to administer the Form to mother or caretaker of the first eligible child.** ☐ **No ⇨ End the interview by thanking the respondent for his/her cooperation.** **Gather together all Forms for this household and tally the number of Forms completed on the cover page.**		

Interviewer's Remarks:

Supervisor's Remarks:



FORM-B: WOMAN AGE 15-49 YEARS

W.1: Identification Panel		ENGLISH
This Form is to be administered to all women age 15-49 years (See Column HL6 in the HH Form). Fill in one Form for each eligible woman.		
WM-A	Province Name and Code:	☐
WM-B	District Name and Code:	☐☐
WM1	Cluster Name and Number	☐☐
WM-C	Stratum code: HH with child < 3 = 1 Other HHs = 2	☐
WM2	HH No.	☐☐☐
WM3	Name of the woman (from FORM-A: **HL2**)	
WM4	Line no. of woman (from FORM-A: **HL1**)	☐☐
WM5	Interviewer's Name & Code	☐☐☐
WM6	Day/Month/Year of interview	☐☐/☐☐/☐☐☐☐
WM7	Result of interview for woman	Completed ..... 1 Not at home ..... 2 Refused ..... 3 Partly completed ..... 4 Incapacitated ..... 5 Other *(Specify_____)* 6
	Remarks if any:	

Read, if the respondent has not responded to any other Forms

Introduction/Consent

HELLO. MY NAME IS (.....) AND I AM WORKING WITH THE KENYA NATIONAL BUREAU OF STATISTICS (KNBS), NAIROBI. WE ARE DOING A SURVEY TO COLLECT INFORMATION ABOUT FAMILY HEALTH AND EDUCATION, FOCUSING ON CHILDREN AND WOMEN, WITH UNICEF SUPPORT. I WOULD LIKE TO TALK TO YOU ABOUT THIS. THE INTERVIEW WILL TAKE ABOUT 30 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND EVENTUALLY BE ANONYMOUS.

THE INFORMATION YOU PROVIDE WILL HELP THE GOVERNMENT AND DEVELOPMENT AGENCIES IN PLANNING AND IMPLEMENTING DEVELOPMENTAL PROGRAMS.

MAY I START THE INTERVIEW NOW?

ENGLISH

1. **The child is reading a book.**
2. **The rains came late this year.**
3. **Parents must care for their children.**
4. **Farming is hard work.**

KISWAHILI

1. **Mtoto anasoma kitabu.**
2. **Mvua ilichelewa mwaka huu.**
3. **Nilazima wazazi watunze watoto wao.**
4. **Ukilima ni kazi ngumu.**

W.2: Woman Information			WI
#	Question	Options	Skip
WM8	IN WHAT MONTH AND YEAR WERE YOU BORN? [Date of birth]	Month ☐☐ DK Month 98 Year ☐☐☐☐ DK Year 9998	
WM9	HOW OLD WERE YOU AT YOUR LAST BIRTHDAY?	Age in completed years ☐☐	
WM10	HAVE YOU EVER ATTENDED SCHOOL OR PRE-SCHOOL?	Yes 1 **No 2**	2⇨WM14
WM11	WHAT IS THE HIGHEST LEVEL OF SCHOOL YOU ATTENDED?	Pre-School 0 Primary 1 Post-Primary, Vocational 2 Secondary, 'A' Level 3 College – Middle Level 4 University 5 Non-standard curriculum 6	
WM12	WHAT IS THE HIGHEST GRADE YOU COMPLETED AT THAT LEVEL?	Grade ☐☐	
WM13	**Check WM11: Level of schooling** ☐ **Secondary/College/University (codes 3 or 4 or 5)** ⇨ **WM15** ☐ **Other** ⇨ **Continue to WM14**		
WM14	NOW I WOULD LIKE YOU TO READ THIS SENTENCE TO ME. [Show language test card to respondent]	Cannot read at all 1 Able to read only parts of sentence 2 Able to read whole sentence 3 No sentence in required language 4 (specify language_____) Blind/mute, visually/speech impaired 5	
WM15	HOW OFTEN DO YOU LISTEN TO RADIO?	Almost everyday 1 At least once a week 2 At least once a month 3 Rarely/Never 4	
WM16	HOW OFTEN DO YOU WATCH TELEVISION?	Almost everyday 1 At least once a week 2 At least once a month 3 Rarely/Never 4	
WM17	HOW OFTEN DO YOU READ NEWSPAPERS?	Almost everyday 1 At least once a week 2 At least once a month 3 Rarely/Never 4	

W.3: Child Mortality			CM
#	Question	Options	Skip
To be administered to all women age 15-49. All questions refer to LIVE births only.			
CM1	NOW I WOULD LIKE TO ASK ABOUT ALL THE BIRTHS YOU HAVE HAD DURING YOUR LIFE. HAVE YOU EVER GIVEN BIRTH? ***If "No" probe by asking:*** I MEAN, TO A CHILD WHO EVER BREATHED OR CRIED OR SHOWED OTHER SIGNS OF LIFE – EVEN IF HE OR SHE LIVED ONLY A FEW MINUTES OR HOURS?	Yes ..... 1 **No** **2**	2⇨ (W.6)
CM3	DO YOU HAVE ANY SONS OR DAUGHTERS TO WHOM YOU HAVE GIVEN BIRTH WHO ARE NOW LIVING WITH YOU?	Yes ..... 1 **No** **2**	2⇨ CM5
CM4	HOW MANY SONS LIVE WITH YOU? HOW MANY DAUGHTERS LIVE WITH YOU?	A. Sons at home ☐☐ B. Daughters at home ☐☐	
CM5	DO YOU HAVE ANY SONS OR DAUGHTERS TO WHOM YOU HAVE GIVEN BIRTH WHO ARE ALIVE BUT DO NOT LIVE WITH YOU?	Yes ..... 1 **No** **2**	2⇨ CM7
CM6	HOW MANY SONS ARE ALIVE BUT DO NOT LIVE WITH YOU? HOW MANY DAUGHTERS ARE ALIVE BUT DO NOT LIVE WITH YOU?	A. Sons elsewhere ☐☐ B. Daughters elsewhere ☐☐	
CM7	HAVE YOU EVER GIVEN BIRTH TO A BOY OR GIRL WHO WAS BORN ALIVE BUT LATER DIED? **If "No" probe by asking:** ANY BABY WHO EVER BREATHED OR CRIED OR SHOWED OTHER SIGNS OF LIFE BUT DID NOT SURVIVE – EVEN IF HE OR SHE LIVED ONLY A FEW MINUTES OR HOURS?	Yes ..... 1 **No** **2**	2⇨ CM9
CM8	HOW MANY BOYS HAVE DIED? HOW MANY GIRLS HAVE DIED?	A. Boys dead ☐☐ B. Girls dead ☐☐	
CM9	**Sum answers to** CM4, CM6, & CM8.	Sum ☐☐	
CM10	**JUST TO MAKE SURE THAT I HAVE THIS RIGHT, YOU HAVE HAD IN TOTAL _____ BIRTHS DURING YOUR LIFE. IS THIS CORRECT?** ☐ **Yes** ⇨ **Continue to W.3a (next page).** ☐ **No** ⇨ **Check responses and make corrections before proceeding to W.3a**		

MICS unicef

W.3a: Birth History — BH

NOW I WOULD LIKE TO RECORD THE NAMES OF ALL YOUR BIRTHS, WHETHER STILL ALIVE OR NOT, STARTING WITH THE FIRST ONE YOU HAD.
Record names of all the births in BH1. Record twins and triplets on separate lines.

BH1		BH2	BH3	BH4	BH5	BH6	BH7	BH8	BH9		BH10
#	WHAT NAME WAS GIVEN TO YOUR (FIRST/ NEXT) BABY?	WERE ANY OF THESE BIRTHS TWINS?	IS *(name)* A BOY OR GIRL?	IN WHAT MONTH AND YEAR WAS *(name)* BORN? **Probe:** WHAT IS HIS/HER BIRTHDAY?	IS *(name)* STILL ALIVE?	HOW OLD WAS *(name)* AT HIS/HER LAST BIRTHDAY? [Record age in completed years]	IS *(name)* LIVING WITH YOU?	Record HH line number of child [Record '00' if child not listed in HH]	*If dead:* HOW OLD WAS *(name)* WHEN HE/SHE DIED? HOW MANY MONTHS OLD WAS *(name)*? [Record days if less than 1 month; months if less than 2 years; or years]		WERE THERE ANY OTHER LIVE BIRTHS BETWEEN *(name of previous birth)* AND *(name)*?
01		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ Year ☐☐☐☐	Yes ... 1 **No ..... 2** **⇨ BH9**	☐☐	Y .... 1 N 2	☐☐ **⇨ next line**	Days ..... 1 Month ..... 2 Year 3	☐☐	
02		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ Year ☐☐☐☐	Yes ... 1 **No ..... 2** **⇨ BH9**	☐☐	Y .... 1 N 2	☐☐ **⇨ BH10**	Days ..... 1 Month ..... 2 Year 3	☐☐	Yes ..... 1 [Add] No ..... 2 [Next]
03		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ Year ☐☐☐☐	Yes ... 1 **No ..... 2** **⇨ BH9**	☐☐	Y .... 1 N 2	☐☐ **⇨ BH10**	Days ..... 1 Month ..... 2 Year 3	☐☐	Yes ..... 1 [Add] No ..... 2 [Next]
04		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ Year ☐☐☐☐	Yes ... 1 **No ..... 2** **⇨ BH9**	☐☐	Y .... 1 N 2	☐☐ **⇨ BH10**	Days ..... 1 Month ..... 2 Year 3	☐☐	Yes ..... 1 [Add] No ..... 2 [Next]
05		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ Year ☐☐☐☐	Yes ... 1 **No ..... 2** **⇨ BH9**	☐☐	Y .... 1 N 2	☐☐ **⇨ BH10**	Days ..... 1 Month ..... 2 Year 3	☐☐	Yes ..... 1 [Add] No ..... 2 [Next]
06		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ Year ☐☐☐☐	Yes ... 1 **No ..... 2** **⇨ BH9**	☐☐	Y .... 1 N 2	☐☐ **⇨ BH10**	Days ..... 1 Month ..... 2 Year 3	☐☐	Yes ..... 1 [Add] No ..... 2 [Next]
07		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ Year ☐☐☐☐	Yes ... 1 **No ..... 2** **⇨ BH9**	☐☐	Y .... 1 N 2	☐☐ **⇨ BH10**	Days ..... 1 Month ..... 2 Year 3	☐☐	Yes ..... 1 [Add] No ..... 2 [Next]
08		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ Year ☐☐☐☐	Yes ... 1 **No ..... 2** **⇨ BH9**	☐☐	Y .... 1 N 2	☐☐ **⇨ BH10**	Days ..... 1 Month ..... 2 Year 3	☐☐	Yes ..... 1 [Add] No ..... 2 [Next]

W.3a: Birth History — BH

NOW I WOULD LIKE TO RECORD THE NAMES OF ALL YOUR BIRTHS, WHETHER STILL ALIVE OR NOT, STARTING WITH THE FIRST ONE YOU HAD.
Record names of all the births in BH1. Record twins and triplets on separate lines.

BH1		BH2	BH3	BH4	BH5	BH6	BH7	BH8	BH9		BH10
#	WHAT NAME WAS GIVEN TO YOUR (FIRST/ NEXT) BABY?	WERE ANY OF THESE BIRTHS TWINS?	IS *(name)* A BOY OR GIRL?	IN WHAT MONTH AND YEAR WAS *(name)* BORN? **Probe:** WHAT IS HIS/HER BIRTHDAY?	IS *(name)* STILL ALIVE?	HOW OLD WAS *(name)* AT HIS/HER LAST BIRTHDAY? [Record age in completed years]	IS *(name)* LIVING WITH YOU?	Record HH line number of child [Record '00' if child not listed in HH]	*If dead:* HOW OLD WAS *(name)* WHEN HE/SHE DIED? HOW MANY MONTHS OLD WAS *(name)*? [Record days if less than 1 month; months if less than 2 years; or years]		WERE THERE ANY OTHER LIVE BIRTHS BETWEEN *(name of previous birth)* AND *(name)*?
09		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ Year ☐☐☐☐	Yes ... 1 **No..... 2** ⇨ BH9	☐☐	Y .... 1 N 2	☐☐ ⇨ BH10	Days ..... 1 Month ..... 2 Year 3	☐☐	Yes ..... 1 [Add] No ..... 2 [Next]
10		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ Year ☐☐☐☐	Yes ... 1 **No..... 2** ⇨ BH9	☐☐	Y .... 1 N 2	☐☐ ⇨ BH10	Days ..... 1 Month ..... 2 Year 3	☐☐	Yes ..... 1 [Add] No ..... 2 [Next]
11		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ Year ☐☐☐☐	Yes ... 1 **No..... 2** ⇨ BH9	☐☐	Y .... 1 N 2	☐☐ ⇨ BH10	Days ..... 1 Month ..... 2 Year 3	☐☐	Yes ..... 1 [Add] No ..... 2 [Next]
12		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ Year ☐☐☐☐	Yes ... 1 **No..... 2** ⇨ BH9	☐☐	Y .... 1 N 2	☐☐ ⇨ BH10	Days ..... 1 Month ..... 2 Year 3	☐☐	Yes ..... 1 [Add] No ..... 2 [Next]

BH11	HAVE YOU HAD ANY LIVE BIRTHS SINCE THE BIRTH OF (name of last birth)? **If yes**, record birth(s)	Yes ..... 1 No 2	
BH12	**Compare CM9 with number of births in history above and mark:** ☐ **Numbers are different ⇨ Probe and reconcile** ☐ **Numbers are same** ⟹	**Check:** **For all birth:** Year of birth is recorded ..... ☐ **For each living child:** Current age is recorded ..... ☐ **For each dead child:** Age of death is recorded..... ☐ **For age at death 12 months or 1 year:** Probe to ..... ☐ determine exact number of months	

W.3a: Birth History			BH
BH13	SOME PREGNANCIES END BEFORE FULL TERM AS A MISCARRIAGE OR AN ABORTION, WHILE OTHERS MAY RESULT IN A STILLBIRTH. HAVE YOU HAD A MISCARRIAGE OR ABORTION?	Yes ..... 1 **No** **2**	2⇨ BH15
BH14	IN ALL HOW MANY PREGNANCIES DID YOU HAVE THAT ENDED IN A MISCARRIAGE OR AN ABORTION?	Miscarriages/abortions ..... ☐☐ DK 98	
BH15	HAVE YOU HAD A STILLBIRTH?	Yes ..... 1 **No** **2**	2⇨CM12
BH16	IN ALL HOW MANY PREGNANCIES DID YOU HAVE THAT ENDED IN A STILLBIRTH?	Still births ..... ☐☐ DK 98	
CM12	**Check BH4 of last birth: Did the woman's last birth occur within the last 2 years, that is, since (day and month of interview in 2006)? If child has died, take special care when referring to this child by name in the following sections.** ☐ **No live birth in last 2 years** ⇨ **MARRIAGE/UNION Section [W.6]** ☐ **Yes, live birth in last 2 years** ⇨ **Continue to CM13** **Name of child:**_____		
CM13	AT THE TIME YOU BECAME PREGNANT WITH (name), DID YOU WANT TO BECOME PREGNANT THEN, DID YOU WANT TO WAIT UNTIL LATER, OR DID YOU WANT NO (MORE) CHILDREN AT ALL?	Then ..... 1 Later ..... 2 No more 3	

W.4: Tetanus Toxoid — TT

#	Question	Options	Skip
This section is to be administered to all women with a live birth in the 2 years preceding the date of interview.			
TT1	DO YOU HAVE A CARD OR OTHER DOCUMENT WITH YOUR OWN IMMUNIZATIONS LISTED? [If a card is presented, use it to assist with answers to the following questions]	Yes (card seen) ..... 1 Yes (card not seen) ..... 2 No ..... 3 DK 8	
TT2	WHEN YOU WERE PREGNANT WITH YOUR LAST CHILD, DID YOU RECEIVE ANY INJECTION TO PREVENT HIM OR HER FROM GETTING TETANUS, WHICH IS CONVULSIONS AFTER BIRTH (AN ANTI-TETANUS SHOT, AN INJECTION AT THE TOP OF THE ARM OR SHOULDER OR THIGH)?	Yes ..... 1 **No ..... 2** **DK 8**	2⇨TT5 8⇨TT5
TT3	HOW MANY TIMES DID YOU RECEIVE THIS ANTI-TETANUS INJECTION DURING YOUR LAST PREGNANCY?	No. of times ..... ☐☐ **DK 98**	98⇨TT5
TT4	***Check:* How many TT doses during last pregnancy were reported in TT3?**	**At least 2 TT inj. during last pregnancy ..... 1** Fewer than 2 TT inj. during last preg 2	**1⇨(W.5)**
TT5	DID YOU RECEIVE ANY TT INJECTION AT ANY TIME BEFORE YOUR LAST PREGNANCY?	Yes ..... 1 **No ..... 2** **DK 8**	**2⇨(W.5)** **8⇨(W.5)**
TT6	HOW MANY TIMES DID YOU RECEIVE IT?	No. of times ..... ☐☐	
TT7	IN WHAT MONTH AND YEAR DID YOU RECEIVE THE LAST ANTI-TETANUS INJECTION BEFORE THAT LAST PREGNANCY? Skip to next section only if year of injection is given. Otherwise, continue with TT8.	Month ..... ☐☐ DK month ..... 98 **Year ..... ☐☐☐☐** DK year 9998	**Skip to (W.5)**
TT8	HOW MANY YEARS AGO DID YOU RECEIVE THE LAST ANTI-TETANUS INJECTION BEFORE THAT LAST PREGNANCY?	Years ago ..... ☐☐	

W.5: Maternal and Newborn Health — MN

#	Question	Options	Skip
This section is to be administered to all women with a live birth in the 2 years preceding date of interview. Check CM12 (in section W.3a) and record name of last-born child here _____. Use this child's name in the following questions, where indicated.			
MN1	IN THE FIRST TWO MONTHS AFTER YOUR LAST BIRTH *[THE BIRTH OF /name]*, DID YOU RECEIVE A VITAMIN A DOSE LIKE THIS? Show 200,000 IU capsule or dispenser (Red).	Yes ..... 1 No ..... 2 DK 8	
MN2	DID YOU SEE ANYONE FOR ANTENATAL CARE FOR THIS PREGNANCY? **If yes:** WHOM DID YOU SEE? ANYONE ELSE? [Probe for the type of person seen and circle all answers given]	Health professional: Doctor/Clinical Officer ..... A Nurse/Midwife ..... B Other person: Traditional birth attendant ..... F Community health worker ..... G Relative/friend ..... H Other (*specify*_____) ..... X **No one** ..... **Y**	Y⇨MN6A
MN2A	HOW MANY TIMES DID YOU RECEIVE ANTENATAL CARE DURING THIS PREGNANCY?	No. of times ..... ☐☐ Don't know 98	
MN2B	DURING THIS PREGNANCY, WERE YOU GIVEN OR DID YOU BUY ANY IRON TABLETS? [Show Tablets]	Yes ..... 1 **No** ..... **2** **Don't know** **8**	2⇨MN3 8⇨MN3
MN2C	DURING THE WHOLE PREGNANCY, FOR HOW MANY DAYS DID YOU TAKE THE TABLETS? [If the answer is not numeric, probe for approximate number of days]	No. of days ..... ☐☐☐ Don't know 998	
MN3	AS PART OF YOUR ANTENATAL CARE, WERE ANY OF THE FOLLOWING DONE AT LEAST ONCE?	Y N	
	MN3a. WERE YOU WEIGHED?	Weighed 1 2	
	MN3b. WAS YOUR BLOOD PRESSURE MEASURED?	Blood pressure 1 2	
	MN3c. DID YOU GIVE A URINE SAMPLE?	Urine sample 1 2	
	MN3d. DID YOU GIVE A BLOOD SAMPLE?	Blood sample 1 2	
MN4	DURING ANY OF THE ANTENATAL VISITS FOR THE PREGNANCY, WERE YOU GIVEN ANY INFORMATION OR COUNSELED ABOUT AIDS OR THE AIDS VIRUS?	Yes ..... 1 No ..... 2 Don't know 8	
MN5	I DON'T WANT TO KNOW THE RESULTS, BUT WERE YOU TESTED FOR HIV/AIDS AS PART OF YOUR ANTENATAL CARE?	Yes ..... 1 **No** ..... **2** **Don't know** **8**	2⇨MN6A 8⇨MN6A
MN6	I DON'T WANT TO KNOW THE RESULTS, BUT DID YOU GET THE RESULTS OF THE TEST?	Yes ..... 1 No ..... 2 Don't know 8	
MN6A	DURING THIS PREGNANCY, DID YOU TAKE ANY MEDICINE IN ORDER TO PREVENT YOU FROM GETTING MALARIA?	Yes ..... 1 **No** ..... **2** **Don't know** **8**	2⇨MN7 8⇨MN7

W.5: Maternal and Newborn Health — MN

#	Question	Options	Skip
MN6B	WHICH MEDICINES DID YOU TAKE TO PREVENT MALARIA? [Circle all medicines taken. If type of medicine is not determined, **show typical anti-malarial** to the respondent]	SP/Fansidar ..... A Chloroquine ..... B Others (*specify*_____) .. X DK ..... Z	***If 'A' is not circled, skip to MN7***
MN6C	HOW MANY TIMES DID YOU TAKE SP/FANSIDAR DURING THIS PREGNANCY TO PREVENT MALARIA?	Number of times ..... ☐☐	
MN7	WHO ASSISTED WITH THE DELIVERY OF YOUR LAST CHILD *(name)*? ANYONE ELSE? [Probe for the type of person assisting and circle all answers given]	Health professional: Doctor/Clinical Officer ..... A Nurse/Midwife ..... B Other person: Traditional birth attendant ..... F Community health worker ..... G Relative/friend ..... H Other (*specify*_____) ..... X No one ..... Y	
MN8	WHERE DID YOU GIVE BIRTH TO *(name)*? [If the facility is hospital, health center, or clinic; write the name of the place below. Probe to identify the type of source and circle the appropriate code] _____ (NAME OF PLACE?)	Home Your home ..... 11 Other home ..... 12 Public sector Govt. hospital ..... 21 Govt. clinic/health center ..... 22 CHAM ..... 23 Other public (*specify*) _____ 26 Private Medical Sector Private hospital ..... 31 Private clinic ..... 32 Private maternity home ..... 33 Other pvt. medical (*specify*_____) .. 36 Other (*specify*_____) .. 96	
MN8A	AFTER *(name)* WAS BORN, DID A HEALTH PROFESSIONAL OR A TRADITIONAL BIRTH ATTENDANT CHECK ON YOUR HEALTH?	Yes ..... 1 **No** ..... **2** **DK** **8**	2⇨MN8D 8⇨MN8D
MN8B	HOW MANY DAYS OR WEEKS AFTER DELIVERY DID THE FIRST CHECK TAKE PLACE? [Record '00' days if same day]	Days after delivery ..... 1 Weeks after delivery ..... 2 ☐☐ Don't Know 998	
MN8C	WHO CHECKED ON YOUR HEALTH AT THAT TIME? [Probe for most qualified person]	Health professional: Doctor/Clinical Officer ..... 11 Nurse/Midwife ..... 12 Other person: Traditional birth attendant ..... 21 Community health worker ..... 22 Other (*specify*_____) 96	

W.5: Maternal and Newborn Health			MN
#	Question	Options	Skip
MN8D	**Check MN8 for place of birth:** ☐ **Birth at home (Code 11 or 12)** ⇨ **Continue to MN8E** ☐ **Otherwise** ⇨ **Skip to MN9**		
MN8E	IN THE TWO MONTHS AFTER *(name)* WAS BORN, DID ANY HEALTH CARE PROVIDER OR A TRADITIONAL BIRTH ATTENDANT CHECK ON HIS/HER HEALTH?	Yes ..... 1 **No** ..... **2** **DK** **8**	 2⇨MN9 8⇨MN9
MN8F	HOW MANY HOURS, DAYS OR WEEKS AFTER THE BIRTH OF *(name)* DID THE FIRST CHECK TAKE PLACE? [If less than one day, record in hours. If less than one week, record in days.]	Hours after birth ..... 1 Days after birth ..... 2 Weeks after birth ..... 3 ☐☐ Don't Know 998	
MN8G	WHO CHECKED ON *(name)*'S HEALTH AT THAT TIME? [Probe for most qualified person]	Health professional: Doctor/Clinical Officer ..... 11 Nurse/Midwife ..... 12 Other person: Traditional birth attendant ..... 21 Community health worker ..... 22 Other (*specify*_____) 96	
MN8H	WHERE DID THIS FIRST CHECK OF *(name)* TAKE PLACE? [Probe to identify the type of source and circle the appropriate code. If unable to determine if a hospital, health centre or clinic is public or private medical, write the name of the place] _____ (NAME OF THE PLACE)	Home Your home ..... 11 Other home ..... 12 Public sector Govt. hospital ..... 21 Govt. clinic/health center ..... 22 CHAM ..... 23 Other public (*specify*_____) ..... 26 Private Medical Sector Private hospital ..... 31 Private clinic ..... 32 Private maternity home ..... 33 Other pvt. medical (*specify*_____) ..... 36 Other (*specify*_____) 96	
MN9	WHEN YOUR LAST CHILD *(name)* WAS BORN, WAS HE/SHE VERY LARGE, LARGER THAN AVERAGE, AVERAGE, SMALLER THAN AVERAGE, OR VERY SMALL?	Very large ..... 1 Larger than average ..... 2 Average ..... 3 Smaller than average ..... 4 Very small ..... 5 DK 8	
MN10	WAS *(name)* WEIGHED AT BIRTH?	Yes ..... 1 **No** ..... **2** **DK** **8**	 2⇨MN12 8⇨MN12

W.5: Maternal and Newborn Health — MN

#	Question	Options	Skip
MN11	HOW MUCH DID *(name)* WEIGH? [Record weight from health card, if available]	Card ..... 1 Re-call ..... 2 (Record in Kgs) ☐.☐☐☐ Don't know 99998	
MN12	DID YOU EVER BREASTFEED *(name)*?	Yes ..... 1 **No 2**	2⇨ (W.6)
MN13	HOW LONG AFTER BIRTH DID YOU FIRST PUT *(name)* TO THE BREAST? If less than 1 hour, record '00' hours. If less than 24 hours, record hours. Otherwise, record days.	Immediately ..... 000 Hours after ..... 1 ☐☐ Days after ..... 2 Don't know/remember 998	
MN14	DID *(name)* RECEIVE ANYTHING ELSE BEFORE STARTING TO BREASTFEED?	Yes ..... 1 **No ..... 2** **Don't know 8**	2⇨ (W.6) 8⇨ (W.6)
MN15	DID (name) RECEIVE ANY OF THE FOLLOWING:	Yes / No	
	MN15A. PLAIN WATER?	Plain water ..... 1 / 2	
	MN15B. MINERAL WATER?	Mineral water ..... 1 / 2	
	MN15C. SWEETENED, FLAVOURED WATER?	Sweetened/Flavored water ..... 1 / 2	
	MN15D. FRUIT JUICE OR TEA?	Fruit juice or tea ..... 1 / 2	
	MN15E. ANYTHING ELSE?	Other (specify_____) ... 1 / 2	

W.6: Marriage/Union — MA

#	Question	Options	Skip
MA1	ARE YOU CURRENTLY MARRIED OR LIVING TOGETHER WITH A MAN AS IF MARRIED?	Yes, currently married ..... 1 Yes, living with a man ..... 2 **No, not in union** **3**	3⇨MA3
MA2	HOW OLD WAS YOUR HUSBAND/PARTNER ON HIS LAST BIRTHDAY?	**Age in years** ..... ☐☐ **DK** **98**	**SKIP TO ⇨ MA5**
MA3	HAVE YOU EVER BEEN MARRIED OR LIVED TOGETHER WITH A MAN?	Yes, formerly married ..... 1 Yes, formerly lived with a man ..... 2 **No** **3**	3⇨(W.7)
MA4	WHAT IS YOUR MARITAL STATUS NOW: ARE YOU WIDOWED, DIVORCED OR SEPARATED?	Widowed ..... 1 Divorced ..... 2 Separated 3	
MA5	HAVE YOU BEEN MARRIED OR LIVED WITH A MAN ONLY ONCE OR MORE THAN ONCE?	Only once ..... 1 More than once 2	
MA6	IN WHAT MONTH AND YEAR DID YOU **FIRST** MARRY OR START LIVING WITH A MAN AS IF MARRIED?	Month ..... ☐☐ DK month ..... 98 Year ..... ☐☐☐☐ DK year 9998	
MA7	**Check MA6: For month and year of marriage** ☐ **Both Month and year of marriage are known?** **⇨ Next Section (W.7)** ☐ **Either month or year of marriage/union not known?** **⇨ Continue to MA8**		
MA8	HOW OLD WERE YOU WHEN YOU STARTED LIVING WITH YOUR FIRST HUSBAND/PARTNER?	Age in years ..... ☐☐	

W.7: Contraception and Unmet Need — CP

#	Question	Options	Skip
CP1	I WOULD LIKE TO TALK WITH YOU ABOUT ANOTHER SUBJECT – FAMILY PLANNING – AND YOUR REPRODUCTIVE HEALTH. ARE YOU PREGNANT NOW?	Yes, currently pregnant ..... 1 **No ..... 2** **Unsure or Don't know 8**	 2⇨ CP2 8⇨ CP2
CP1A	AT THE TIME YOU BECOME PREGNANT DID YOU WANT TO BECOME PREGNANT THEN, DID YOU WANT TO WAIT UNTIL LATER, OR DID YOU NOT WANT TO HAVE ANY MORE CHILDREN?	Then ..... 1 Later ..... 2 Not want more children 3	1⇨ CP4 2⇨ CP4 3⇨ CP4
CP2	SOME PEOPLE USE VARIOUS WAYS OR METHODS TO DELAY OR AVOID A PREGNANCY. ARE YOU CURRENTLY DOING SOMETHING OR USING ANY METHOD TO DELAY OR AVOID GETTING PREGNANT?	Yes ..... 1 **No 2**	 2⇨ CP6
CP3	WHICH METHOD ARE YOU USING? Do not prompt. If more than one method is mentioned, circle each one.	Female sterilization/Tubeligation ..... A Male sterilization/Vasectomy ..... B Pill ..... C IUD/coil ..... D Injections ..... E Implants ..... F Condom ..... G Female condom ..... H Diaphragm ..... I Lactational amenorrhoea method (LAM) ..... J Periodic abstinence ..... K Withdrawal ..... L Other (*specify*_____) X	
CP4	NOW I WOULD LIKE TO ASK SOME QUESTIONS ABOUT THE FUTURE. WOULD YOU LIKE TO HAVE (A/ANOTHER) CHILD, OR WOULD YOU PREFER NOT TO HAVE ANY (MORE) CHILDREN? **If currently pregnant:** AFTER THE CHILD YOU ARE NOW EXPECTING, WOULD YOU LIKE TO HAVE ANOTHER CHILD OR YOU WOULD PREFER NOT TO HAVE ANY (MORE) CHILDREN?	Have (a/another) child ..... 1 **No more/none ..... 2** **Says she cannot get pregnant ..... 3** **Undecided/don't know 8**	 2⇨CP6 3⇨(W.8) 8⇨CP6
CP5	HOW LONG WOULD YOU LIKE TO WAIT BEFORE THE BIRTH OF (A/ANOTHER) CHILD?	Months ..... 1 ☐☐ Years ..... 2 Soon/now ..... 993 **Says she cannot get pregnant ..... 994** After marriage ..... 995 Other ..... 996 Don't know 998	 994⇨ (W.8)
CP6	**Check CP1: Pregnancy status** ☐ **Currently pregnant (code = 1) ⇨ Next Section (W.8)** ☐ **Not currently pregnant ⇨ Continue to CP7**		
CP7	DO YOU THINK YOU ARE PHYSICALLY ABLE TO GET PREGNANT AT THIS TIME?	Yes ..... 1 No ..... 2 Don't know 3	

W.8: Female Genital Mutilation/Cutting — FG

#	Question	Options	Skip
FG1	HAVE YOU EVER HEARD OF FEMALE CIRCUMCISION?	**Yes** ..... **1** No 2	1⇨FG3
FG2	IN A NUMBER OF COMMUNITIES, THERE IS A PRACTICE IN WHICH A GIRL MAY HAVE PART OF HER GENITALS CUT. HAVE YOU EVER HEARD ABOUT THIS PRACTICE?	Yes ..... 1 **No** **2**	2⇨(W.9)
FG3	HAVE YOU YOURSELF EVER BEEN CIRCUMCISED?	Yes ..... 1 **No** **2**	2⇨FG8
FG4	NOW I WOULD LIKE TO ASK YOU WHAT WAS DONE TO YOU AT THIS TIME. WAS ANY FLESH REMOVED FROM THE GENITAL AREA?	**Yes** ..... **1** No ..... 2 DK 8	1⇨FG6
FG5	WAS THE GENITAL AREA JUST NICKED WITHOUT REMOVING ANY FLESH?	Yes ..... 1 No ..... 2 DK 8	
FG6	WAS THE GENITAL AREA SEWN CLOSED (OR 'SEALED')?	Yes ..... 1 No ..... 2 DK 8	
FG7	WHO CIRCUMCISED YOU?	TRADITIONAL PERSONS Traditional 'circumciser' ..... 11 Traditional birth attendant ..... 12 Other traditional (***specify*** _____) .. 16 HEALTH PROFESSIONAL Doctor ..... 21 Nurse/midwife ..... 22 Other health professional (***specify*** _____) .. 26 Don't know 98	
FG8	**Check CM4 and CM6 (in Section W.3): Woman has living daughter?** ☐ **Yes, has living daughter** ⇨ **Continue with FG9** ☐ **No living daughter** ⇨ **Go to FG16**		
FG9	HAVE ANY OF YOUR DAUGHTERS BEEN CIRCUMCISED? **If yes**, HOW MANY?	No. of daughters circumcised ..... ☐☐ **No daughters circumcised** **00**	00⇨FG16
FG10	TO WHICH OF YOUR DAUGHTERS DID THIS HAPPEN MOST RECENTLY? [Record the daughter's name]	Name of daughter: _____	
FG11	NOW I WOULD LIKE TO ASK YOU WHAT WAS DONE TO *(name)* AT THAT TIME. WAS ANY FLESH REMOVED FROM THE GENITAL AREA?	**Yes** ..... **1** No ..... 2 DK 8	1⇨FG13

W.8: Female Genital Mutilation/Cutting — FG

#	Question	Options	Skip
FG12	WAS THE GENITAL AREA JUST NICKED WITHOUT REMOVING ANY FLESH?	Yes ..... 1 No ..... 2 DK 8	
FG13	WAS THE GENITAL AREA SEWN CLOSED (OR 'SEALED')?	Yes ..... 1 No ..... 2 DK 8	
FG14	HOW OLD WAS *(name)* WHEN THIS OCCURRED? [If the respondent does not know the age, probe to get an estimate]	Daughter's age at circumcision ..... ☐☐ Don't know 98	
FG15	WHO DID THE CIRCUMCISION FOR *(name)*?	TRADITIONAL PERSONS Traditional 'circumciser' ..... 11 Traditional birth attendant ..... 12 Other traditional (***specify*** _____) .. 16 HEALTH PROFESSIONAL Doctor ..... 21 Nurse/midwife ..... 22 Other health professional (***specify*** _____) .. 26 Don't know 98	
FG16	DO YOU THINK THIS PRACTICE SHOULD BE CONTINUED OR SHOULD IT BE DISCONTINUED?	Continued ..... 1 Discontinued ..... 2 Depends ..... 3 DK 8	

W.9: Domestic Violence						DV
#	Question	Options				Skip
DV1	SOMETIMES A HUSBAND IS ANNOYED OR ANGERED BY THINGS THAT HIS WIFE DOES. IN YOUR OPINION, IS A HUSBAND JUSTIFIED IN HITTING OR BEATING HIS WIFE IN THE FOLLOWING SITUATIONS:		Yes	No	DK	
	DV1A. IF SHE GOES OUT WITH OUT TELLING HIM?	Goes out without telling.....	1	2	8	
	DV1B. IF SHE NEGLECTS THE CHILDREN?	Neglects the children.....	1	2	8	
	DV1C. IF SHE ARGUES WITH HIM?	Argues with husband.....	1	2	8	
	DV1D. IF SHE REFUSES SEX WITH HIM?	Refuses sex.....	1	2	8	
	DV1E. IF SHE BURNS THE FOOD?	Burns the food.....	1	2	8	

W.10: HIV/AIDS			HA
#	Question	Options	Skip
HA1	NOW I WOULD LIKE TO TALK WITH YOU ABOUT SOMETHING ELSE. HAVE YOU EVER HEARD OF THE VIRUS HIV OR AN ILLNESS CALLED AIDS?	Yes ..... 1 **No** **2**	2⇨ END
HA2	CAN PEOPLE PROTECT THEMSELVES FROM GETTING INFECTED WITH THE AIDS VIRUS BY HAVING ONE SEX PARTNER WHO IS NOT INFECTED AND ALSO HAS NO OTHER PARTNERS?	Yes ..... 1 No ..... 2 Don't know 8	
HA3	CAN PEOPLE GET INFECTED WITH THE AIDS VIRUS BECAUSE OF WITCHCRAFT OR OTHER SUPERNATURAL MEANS?	Yes ..... 1 No ..... 2 Don't know 8	
HA4	CAN PEOPLE REDUCE THEIR CHANCE OF GETTING THE AIDS VIRUS BY USING A CONDOM EVERY TIME THEY HAVE SEX?	Yes ..... 1 No ..... 2 Don't know 8	
HA5	CAN PEOPLE GET THE AIDS VIRUS FROM MOSQUITO BITES?	Yes ..... 1 No ..... 2 Don't know 8	
HA6	CAN PEOPLE REDUCE THEIR CHANCE OF GETTING INFECTED WITH THE AIDS VIRUS BY NOT HAVING SEX AT ALL?	Yes ..... 1 No ..... 2 Don't know 8	
HA7	CAN PEOPLE GET THE AIDS VIRUS BY SHARING FOOD WITH A PERSON WHO HAS AIDS?	Yes ..... 1 No ..... 2 Don't know 8	
HA7A	CAN PEOPLE GET THE AIDS VIRUS BY GETTING INJECTIONS WITH A NEEDLE THAT WAS ALREADY USED BY AN INFECTED PERSON?	Yes ..... 1 No ..... 2 Don't know 8	
HA8	IS IT POSSIBLE FOR A HEALTHY-LOOKING PERSON TO HAVE THE AIDS VIRUS?	Yes ..... 1 No ..... 2 Don't know 8	
HA9	CAN THE AIDS VIRUS BE TRANSMITTED FROM A MOTHER TO A BABY (.....)	Yes / No / DK	
	HA9A. DURING PREGNANCY?	During pregnancy 1 2 8	
	HA9B. DURING DELIVERY?	During delivery 1 2 8	
	HA9C. BY BREASTFEEDING?	By breastfeeding 1 2 8	
HA10	IF A FEMALE TEACHER HAS THE AIDS VIRUS BUT IS NOT SICK, SHOULD SHE BE ALLOWED TO CONTINUE TEACHING IN SCHOOL?	Yes ..... 1 No ..... 2 Don't know/not sure/depends 8	
HA11	WOULD YOU BUY FRESH VEGETABLES FROM A SHOPKEEPER OR VENDOR IF YOU KNEW THAT THIS PERSON HAD THE AIDS VIRUS?	Yes ..... 1 No ..... 2 Don't know/not sure/depends 8	

W.10: HIV/AIDS			HA
HA12	IF A MEMBER OF YOUR FAMILY BECAME INFECTED WITH THE AIDS VIRUS, WOULD YOU WANT IT TO REMAIN A SECRET?	Yes ..... 1 No ..... 2 Don't know/not sure/depends 8	
HA13	IF A MEMBER OF YOUR FAMILY BECAME SICK WITH THE AIDS VIRUS, WOULD YOU BE WILLING TO CARE FOR HIM OR HER IN YOUR HH?	Yes ..... 1 No ..... 2 Don't know/not sure/depends 8	
HA14	**Check MN5 (in Section W.5): Tested for HIV during antenatal care?** ☐ **Yes ⇨ HA19** ☐ **No ⇨ Continue to HA15**		
HA15	I DO NOT WANT TO KNOW THE RESULTS, BUT HAVE YOU EVER BEEN TESTED TO SEE IF YOU HAVE HIV, THE VIRUS THAT CAUSES AIDS?	Yes ..... 1 **No 2**	2⇨HA18
HA16	I DO NOT WANT YOU TO TELL ME THE RESULTS OF THE TEST, BUT HAVE YOU BEEN TOLD THE RESULTS?	Yes ..... 1 No 2	
HA17	DID YOU, YOURSELF, ASK FOR THE TEST, WAS IT OFFERED TO YOU AND YOU ACCEPTED, OR WAS IT REQUIRED?	**Asked for the test ..... 1** **Offered and accepted ..... 2** **Required 3**	**END**
HA18	AT THIS TIME, DO YOU KNOW OF A PLACE WHERE YOU CAN GO TO GET SUCH A TEST TO SEE IF YOU HAVE THE AIDS VIRUS?	**Yes ..... 1** **No 2**	**END**
HA19	OTHER THAN AT THE ANTENATAL CLINIC, DO YOU KNOW OF A PLACE WHERE YOU CAN GO TO GET A TEST TO SEE IF YOU HAVE THE AIDS VIRUS?	Yes ..... 1 No 2	

-: Check, whether the Form has any gaps, if yes, fill-in those gaps and thank the respondent for spending time and providing valuable information; and go to the next respondent :–

Remarks/Observations by the Supervisor/Editor/Coordinators:

FORM-C: CHILD BELOW 5 YEARS

C.1: General Information — ENGLISH

This FORM is to be administered to all mothers/caretakers (See Column HL8 of HH Listing Form) who care for a child that lives with them and is under the age of 5 years (See Column HL5 of HH Listing Form). Use a separate Form for each eligible child.

UF-A	Province Name & Code.		☐
UF-B	District Name & Code.		☐☐
UF1	Cluster Name and Number ☐☐	UF-C	Stratum Code: [Child < 3 = 1/Other = 2] ☐
UF2	HH No.		☐☐☐
UF4	Child Name & Line No.		☐☐
UF6	Mother/Caretaker Name & Line No.		☐☐
UF7	Interviewer's Name & Code		☐☐☐
UF8	Day/Month/Year of interview		☐☐/☐☐/☐☐☐☐
UF9	Result of interview for children under 5 [Codes refer to mother/caretaker]		Completed ..... 1 Not at home ..... 2 Refused ..... 3 Partly completed ..... 4 Incapacitated ..... 5 Other (Specify)_____ 6

Remarks

Read, if the respondent has not responded to any other Forms

Introduction/Consent

HELLO. MY NAME IS (.....) AND I AM WORKING WITH THE KENYA NATIONAL BUREAU OF STATISTICS (KNBS), NAIROBI. WE ARE DOING A SURVEY TO COLLECT INFORMATION ABOUT FAMILY HEALTH AND EDUCATION, FOCUSING ON CHILDREN AND WOMEN, WITH UNICEF SUPPORT. I WOULD LIKE TO TALK TO YOU ABOUT THIS. THE INTERVIEW WILL TAKE ABOUT 20 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND EVENTUALLY BE ANONYMOUS. DURING THIS TIME I WOULD LIKE TO SPEAK TO YOU ABOUT YOUR CHILDREN AND/OR CHILDREN YOU TAKE CARE IN THIS HOUSEHOLD.

THE INFORMATION YOU PROVIDE WILL HELP THE GOVERNMENT AND DEVELOPMENT AGENCIES IN PLANNING AND IMPLEMENTING DEVELOPMENTAL PROGRAMS.

MAY I START THE INTERVIEW NOW?

UF10	NOW I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE HEALTH OF EACH CHILD UNDER THE AGE OF 5 IN YOUR CARE, WHO LIVES WITH YOU/IN THIS HH NOW. NOW I WANT TO ASK YOU ABOUT (*name*). IN WHAT MONTH AND YEAR WAS (*name*) BORN? **Probe:** WHAT IS HIS/HER BIRTHDAY? DOES HE/SHE HAVE A BIRTH CERTIFICATE? [If the mother/caretaker knows the exact birth date, also enter the day; otherwise, circle 98 for day]	**Date of birth:** Day ☐☐ Don't know the day of birth....98 Month ☐☐ Year ☐☐☐☐
UF11	HOW MANY MONTHS OLD IS (*name*)? [Record age in completed months]	Age in months ☐☐

C.2: Birth Registration and Early Learning — BR

#	Question	Options	Skip
BR1	DOES (*name*) HAVE A BIRTH CERTIFICATE? MAY I SEE IT?	**Yes, seen....1** **Yes, not seen....2** No....3 Don't know....8	1⇨BR5 2⇨BR5
BR2	HAS (*name's*) BIRTH BEEN REGISTERED WITH THE CIVIL AUTHORITIES?	**Yes....1** No....2 **Don't know....8**	1⇨BR5 8⇨BR4
BR3	WHY IS (*name's*) BIRTH NOT REGISTERED? PROBE: DID YOU KNOW THAT A BIRTH HAS TO BE REGISTERED? DID YOU TRY TO REGISTER THIS ONE? WHY DID YOU FAIL TO REGISTER THIS BIRTH?	Costs too much....1 Must travel too far....2 Did not know it should be registered....3 Did not want to pay fine....4 Does not know where to register....5 Other (*specify*_____)..6 Don't know....8	
BR4	DO YOU KNOW HOW TO REGISTER YOUR CHILD'S BIRTH?	Yes....1 No....2	
BR4A	DO YOU KNOW WHERE TO REGISTER YOUR CHILD'S BIRTH?	Yes....1 No....2	
BR5	**Check UF11 (age of the child): Child is 36-59 months old?** ☐ **Yes ⇨ Continue to BR6** ☐ **No ⇨ Go to BR8**		
BR6	DOES (*name*) ATTEND ANY ORGANIZED LEARNING OR EARLY CHILDHOOD EDUCATION PROGRAMME, SUCH AS A PRIVATE OR GOVERNMENT FACILITY, INCLUDING KINDERGARTEN OR COMMUNITY CHILD CARE?	Yes....1 **No....2** **Don't know....8**	 2⇨BR7A 8⇨BR8
BR7	WITHIN THE LAST SEVEN DAYS, ABOUT HOW MANY HOURS DID (*name*) ATTEND?	No. of Hours ☐☐	**Skip to BR8**

C.2: Birth Registration and Early Learning — BR

BR7A	WHAT IS THE MAIN REASON FOR (*name*) NOT ATTENDING ANY PRE-SCHOOL LEARNING/EARLY CHILDHOOD EDUCATION PROGRAM?	No facility nearby ..... 1 The facility is not good ..... 2 No money to pay the fees/expensive ..... 3 Child is too young ..... 4 Other (specify_____) ..... 6 Don't know 8				
BR8	IN THE PAST 3 DAYS, DID YOU OR ANY HOUSEHOLD MEMBER OVER 15 YEARS OF AGE ENGAGE IN ANY OF THE FOLLOWING ACTIVITIES WITH (*name*): ***If yes, ask:*** WHO ENGAGED IN THIS ACTIVITY WITH THE CHILD - THE MOTHER, THE CHILD'S FATHER OR ANOTHER ADULT MEMBER OF THE HOUSEHOLD (INCLUDING THE CARETAKER/RESPONDENT)? *Circle all that apply.*	Mother	Father	Other	None	
BR8a	READ BOOKS OR LOOK AT PICTURE BOOKS WITH (*name*)?	A	B	X	Y	
BR8b	TELL STORIES TO (*name*)?	A	B	X	Y	
BR8c	SING SONGS WITH (*name*)?	A	B	X	Y	
BR8d	TAKE (*name*) OUTSIDE THE HOME, COMPOUND, YARD OR ENCLOSURE?	A	B	X	Y	
BR8e	PLAY WITH (*name*)?	A	B	X	Y	
BR8f	SPEND TIME WITH (*name*) NAMING, COUNTING, AND/OR DRAWING THINGS?	A	B	X	Y	

C.3: Vitamin A — VA

#	Question	Options	Skip
VA1	HAS (name) EVER RECEIVED A VITAMIN A CAPSULE (SUPPLEMENT) LIKE THIS ONE? SHOW CAPSULE OR DISPENSER FOR DIFFERENT DOSES: 100,000 IU FOR THOSE 6-11 MONTHS OLD (BLUE/YELLOW) 200,000 IU FOR THOSE 12-59 MONTHS OLD (RED)	Yes ..... 1 **No ..... 2** **Child below 6 months old ..... 3** **Don't know 8**	 2⇨ (C.4) 3⇨ (C.4) 8⇨ (C.4)
VA2	HOW MANY MONTHS AGO DID (*name*) TAKE THE LAST DOSE?	Months ..... ☐☐ Don't know 98	
VA3	WHERE DID (*name*) GET THIS LAST DOSE?	On routine visit to health facility ..... 1 Sick child visit to health facility ..... 2 National Immunization/Vit. A Campaign ..... 3 Other (*Specify*_____) ..... 6 Don't know 8	

C.4: Breastfeeding — BF

#	Question	Options	Skip
BF1	HAS (*name*) EVER BEEN BREASTFED?	Yes ..... 1 **No** ..... **2** **Don't know** **8**	 2⇨ BF3 8⇨ BF3
BF1a	HOW LONG AFTER BIRTH WAS (*name*) PUT TO THE BREAST FOR THE FIRST TIME?	Immediately after birth ..... 000 Hours ..... 1 ☐☐ Days ..... 2 Don't know 998	
BF2	IS HE/SHE STILL BEING BREASTFED?	**Yes** ..... **1** No ..... 2 **Don't know** **8**	1⇨ BF2b 8⇨ BF3
BF2a	FOR HOW MANY MONTHS DID (*name*) BREASTFEED?	Months ..... ☐☐ Don't know 98	Skip to BF3
BF2b	SINCE THIS TIME YESTERDAY, HOW MANY TIMES HAS (*name*) BREASTFED? *(If answer is not numeric, probe for approximate number)*	Times Breastfed ..... ☐☐ Don't know 98	

BF3 — SINCE THIS TIME YESTERDAY, DID HE/SHE RECEIVE ANY OF THE FOLLOWING:
(Read each item aloud and record response before proceeding to the next item)

Item	Yes	No	DK	
BF3A. VITAMIN, MINERAL SUPPLEMENTS OR MEDICINE?	1	2	8	
BF3B. PLAIN WATER?	1	2	8	
BF3C. SWEETENED, FLAVOURED WATER OR FRUIT JUICE OR TEA OR INFUSION?	1	2	8	
BF3D. ORAL REHYDRATION SOLUTION (ORS)?	1	2	8	
BF3E. INFANT FORMULA?	1	2	8	
BF3F. TINNED, POWDERED OR FRESH MILK?	1	2	8	
BF3G. ANY OTHER LIQUIDS?	1	2	8	
BF3H. SOLID OR SEMI-SOLID (MUSHY) FOOD?	1	2	8	

BF4 — **Check BF3H. Child received solid or semi-solid (mushy) food?**

☐ **Yes** ⇨ **Continue to BF5**

☐ **No or DK** ⇨ **Next Section (C.5)**

C.4: Breastfeeding			BF
#	Question	Options	Skip
BF5	SINCE THIS TIME YESTERDAY, HOW MANY TIMES DID *(name)* EAT SOLID, SEMISOLID OR SOFT FOODS OTHER THAN LIQUIDS? *(If 7 or more times, record 7)*	No. of times ..... ☐ Don't know 8	
BF5a	AT WHAT AGE DID *(name)* START RECIVING WATER OTHER THAN BREASTMILK? *(If 7 or more months old, record 7)*	Age in months ..... ☐ Don't know 8	
BF5b	AT WHAT AGE DID *(name)* START RECIVING SOLID OR SEMI-SOLID FOOD? *(If 15 or more months old, record 15)*	Age in months ..... ☐☐ Don't know 98	

C.5: Care of Childhood Illness — CI

#	Question	Options	Skip
CA1	HAS (*name*) HAD DIARRHOEA IN THE LAST TWO WEEKS, THAT IS, SINCE (*day of the week*) OF THE WEEK BEFORE LAST? *(Diarrhoea is determined as perceived by mother or caretaker, or as three or more loose or watery stools per day, or blood in stool)*	Yes ..... 1 **No ..... 2** **Don't know 8**	 2⇨CA5 8⇨CA5
CA2	DURING THIS LAST EPISODE OF DIARRHOEA, DID (*name*) DRINK ANY OF THE FOLLOWING: *Read each item aloud and record response before proceeding to the next item.*		

Item	Yes	No	DK
CA2A. A FLUID MADE FROM A SPECIAL PACKET CALLED (*local name for ORS packet solution*)?	1	2	8
CA2B. GOVERNMENT-RECOMMENDED HOMEMADE FLUID?	1	2	8
CA2C. A PRE-PACKAGED ORS FLUID FOR DIARRHOEA?	1	2	8

CA3	DURING (*name's*) ILLNESS, DID HE/SHE DRINK MUCH LESS, ABOUT THE SAME, OR MORE THAN USUAL?	Much less or none ..... 1 About the same (or somewhat less) ..... 2 More ..... 3 Don't know 8	
CA4	DURING (*name's*) ILLNESS, DID HE/SHE EAT LESS, ABOUT THE SAME, OR MORE FOOD THAN USUAL? **If "less", probe:** MUCH LESS OR A LITTLE LESS?	None ..... 1 Much less ..... 2 Somewhat less ..... 3 About the same ..... 4 More ..... 5 Don't know 8	
CA5	HAS (*name*) HAD AN ILLNESS WITH A COUGH AT ANY TIME IN THE LAST TWO WEEKS, THAT IS, SINCE (*day of the week*) OF THE WEEK BEFORE LAST?	Yes ..... 1 **No ..... 2** **Don't know 8**	 2⇨CA12 8⇨CA12
CA6	WHEN (*name*) HAD AN ILLNESS WITH A COUGH, DID HE/SHE BREATHE FASTER THAN USUAL WITH SHORT, QUICK BREATHS OR HAVE DIFFICULTY BREATHING?	Yes ..... 1 **No ..... 2** **Don't know 8**	 2⇨CA12 8⇨CA12
CA7	WERE THE SYMPTOMS DUE TO A PROBLEM IN THE CHEST OR A BLOCKED NOSE?	Problem in chest ..... 1 **Blocked nose ..... 2** Both ..... 3 **Other (*specify* _____) ... 6** Don't know 8	 2⇨CA12 6⇨CA12
CA8	DID YOU SEEK ADVICE OR TREATMENT FOR THE ILLNESS OUTSIDE THE HOME?	Yes ..... 1 **No ..... 2** **Don't know 8**	 2⇨CA10 8⇨CA10

C.5: Care of Childhood Illness			CI
CA9	FROM WHERE DID YOU SEEK CARE? ANYWHERE ELSE? [Circle all providers mentioned, but do NOT prompt with any suggestions] [If source is hospital, health center, or clinic, write the name of the place below. Probe to identify the type of source and circle the appropriate code.] _____ (NAME OF PLACE)	**Public sector** Govt. hospital ..... A Govt. health centre ..... B Govt. health post ..... C Village health worker ..... D Mobile/outreach clinic ..... E Other public (specify_____) ..... H **Private medical sector** Private hospital/clinic ..... I Private physician ..... J Private pharmacy ..... K Mobile clinic ..... L Other private (specify_____) ..... O **Other source** Relative or friend ..... P Shop ..... Q Traditional practitioner ..... R Other (specify_____) X	
CA10	WAS (*name*) GIVEN MEDICINE TO TREAT THIS ILLNESS?	Yes ..... 1 **No ..... 2** **Don't know 8**	2⇨CA12 8⇨CA12
CA11	WHAT MEDICINE WAS (*name*) GIVEN? (Circle all medicines given)	Antibiotic ..... A Paracetamol/Panadol/Acetaminophen ..... P Aspirin ..... Q Ibupropfen ..... R Other (*specify*_____) ..... X Don't know ..... Z	
CA12	**Check UF11: Child age 0-35 months?** ☐ **Yes ⇨ Continue to CA13** ☐ **No ⇨ CA14**		
CA13	THE LAST TIME (*name*) PASSED STOOLS, WHAT WAS DONE TO DISPOSE OF THE STOOLS?	Child used toilet/latrine ..... 01 Put/rinsed into toilet or latrine ..... 02 Put/rinsed into drain or ditch ..... 03 Thrown into garbage (solid waste) ..... 04 Buried ..... 05 Left in the open ..... 06 Other (*specify*) _____ 96 Don't know 98	
CA14	[Ask **ONLY ONCE** for each mother/ caretaker] SOMETIMES CHILDREN HAVE SEVERE ILLNESSES AND SHOULD BE TAKEN IMMEDIATELY TO A HEALTH FACILITY. WHAT TYPES OF SYMPTOMS WOULD CAUSE YOU TO TAKE YOUR CHILD TO A HEALTH FACILITY RIGHT AWAY? [Keep asking for more signs or symptoms until the mother/caretaker cannot recall any additional symptoms. Circle all symptoms mentioned] [Do not prompt with any suggestions]	Child not able to drink or breastfeed ..... A Child becomes sicker ..... B Child develops a fever ..... C Child has fast breathing ..... D Child has difficult breathing ..... E Child has blood in stool ..... F Child is drinking poorly ..... G Other1 (*specify*_____) . X Other 2(*specify*_____) . Y Other3 (*specify*_____) . Z	

C.6: Malaria			ML
#	Question	Options	Skip
ML1	IN THE LAST TWO WEEKS, THAT IS, SINCE (*day of the week*) OF THE WEEK BEFORE LAST, HAS (*name*) BEEN ILL WITH A FEVER?	Yes ..... 1 **No** ..... **2** **Don't' know** **8**	 2⇨ML10 8⇨ML10
ML2	WAS (*name*) SEEN AT A HEALTH FACILITY DURING THIS ILLNESS?	Yes ..... 1 **No** ..... **2** **Don't' know** **8**	 2⇨ML6 8⇨ML6
ML3	DID (*name*) TAKE A MEDICINE FOR FEVER OR MALARIA THAT WAS PROVIDED OR PRESCRIBED AT THE HEALTH FACILITY?	Yes ..... 1 **No** ..... **2** **Don't' know** **8**	 2⇨ML5 8⇨ML5
ML4	WHAT MEDICINE DID (*name*) TAKE THAT WAS PROVIDED OR PRESCRIBED AT THE HEALTH FACILITY? *[Circle all medicines mentioned]*	Anti-malarials: SP/Fansidar ..... A Chloroquine ..... B Amodiaquine ..... C Quinine ..... D Artemisinin-based combinations ..... E Other anti-malarial (specify_____). H Other medications: Paracetamol/Panadol/Acetaminophen ..... P Aspirin ..... Q Ibuprofen ..... R Other (*specify*_____) ..X Don't know ..... Z	
ML5	WAS (*name*) GIVEN MEDICINE FOR THE FEVER OR MALARIA BEFORE BEING TAKEN TO THE HEALTH FACILITY?	**Yes** ..... **1** **No** ..... **2** **Don't' know** **8**	1⇨ML7 2⇨ML8 8⇨ML8
ML6	WAS (*name*) GIVEN MEDICINE FOR FEVER OR MALARIA DURING THIS ILLNESS?	Yes ..... 1 **No** ..... **2** **Don't' know** **8**	 2⇨ML8 8⇨ML8
ML7	WHAT MEDICINE WAS (*name*) GIVEN? *[Circle all medicines given. Ask to see the medication if type is not known. If type of medication is still not determined, show typical anti-malarials to respondent.]*	Anti-malarials: SP/Fansidar ..... A Chloroquine ..... B Amodiaquine ..... C Quinine ..... D Artemisinin-based combinations ..... E Other anti-malarial (specify_____). H Other medications: Paracetamol/Panadol/Acetaminophen ..... P Aspirin ..... Q Ibuprofen ..... R Other (*specify*_____) ..X Don't know ..... Z	

C.6: Malaria			ML
#	Question	Options	Skip
ML8	**Check ML4 and/or ML7: Anti-malarial mentioned (Codes A-H)?** ☐ **Yes ⇨ Continue to ML9** ☐ **No ⇨ ML10**		
ML9	HOW LONG AFTER THE FEVER STARTED DID (*name*) FIRST TAKE (*name of anti-malarial from ML4 or ML7*)? [If multiple anti-malarials mentioned in ML4 or ML7, name all anti-malarial medicines mentioned] [Record the code for the day on which the first anti-malarial was given]	Same day ..... 0 Next day ..... 1 2 days after the fever ..... 2 3 days after the fever ..... 3 4 or more days after the fever ..... 4 DK 8	
ML10	DID (*name*) SLEEP UNDER A MOSQUITO NET LAST NIGHT?	Yes ..... 1 No ..... 2 Don't' know 8	

C.7: Child Immunization — IM

#	Question		Options	Skip
If an immunization card is available, copy the dates in IM2-IM8b for each type of immunization or vitamin A dose recorded on the card. IM9 is for recording vaccinations that are not recorded on the card. IM10-IM17 will only be asked when a card is not available.				
IM1	IS THERE A VACCINATION CARD FOR (*name*)?		Yes, seen ..... 1 **Yes, not seen ..... 2** **No 3**	 2⇨IM10 3⇨IM10
	(a) Copy dates for each vaccination from the card. (b) Write '44' in day column if card shows that vaccination was given but no date recorded.		Date of Immunization Day / Month / Year	
IM2	BCG	BCG		
IM3a	Polio 0	OPV 0		
IM3b	Polio 1	OPV 1		
IM3c	Polio 2	OPV 2		
IM3d	Polio 3	OPV 3		
IM4a	DPT - HepB + Hib: 1 (Pentavalent 1)	DPT 1		
IM4b	DPT - HepB + Hib: 2 (Pentavalent 2)	DPT 2		
IM4c	DPT - HepB + Hib: 3 (Pentavalent 3)	DPT 3		
IM6	Measles (or MMR)	Measles		
IM7	Yellow fever	Y Fever		
IM8a	Vitamin A (1)	Vit. A1		
IM8b	Vitamin A (2)	Vit A2		
IM9	IN ADDITION TO THE VACCINATIONS AND VITAMIN A CAPSULES SHOWN ON THIS CARD, DID (*name*) RECEIVE ANY OTHER VACCINATIONS – INCLUDING VACCINATIONS RECEIVED IN CAMPAIGNS OR IMMUNIZATION DAYS? [Record 'Yes' only if respondent mentions BCG, OPV 0-3, DPT 1-3, Measles or Vitamin A supplements.]		Yes ..... 1 (Probe for vaccinations and write '66' in the corresponding day column on IM2 to IM8B and go to IM19.) **No ..... 2** **Don't know 8**	 2⇨IM19 8⇨IM19
IM10	HAS (*name*) EVER RECEIVED ANY VACCINATIONS TO PREVENT HIM/HER FROM GETTING DISEASES, INCLUDING VACCINATIONS RECEIVED IN A CAMPAIGN OR IMMUNIZATION DAY?		Yes ..... 1 **No ..... 2** **Don't know 8**	 2⇨IM19 8⇨IM19
IM11	HAS (*name*) EVER BEEN GIVEN A BCG VACCINATION AGAINST TUBERCULOSIS – THAT IS, AN INJECTION IN THE ARM OR SHOULDER THAT CAUSED A SCAR?		Yes ..... 1 No ..... 2 Don't know 8	
IM12	HAS (*name*) EVER BEEN GIVEN ANY "VACCINATION DROPS IN THE MOUTH" TO PROTECT HIM/HER FROM GETTING DISEASES – THAT IS, POLIO?		Yes ..... 1 **No 2**	 2⇨IM15

C.7: Child Immunization — IM

		Don't know **8**	8⇨IM15
IM13	HOW OLD WAS (*name*) WHEN THE FIRST DOSE WAS GIVEN – JUST AFTER BIRTH (WITHIN TWO WEEKS) OR LATER?	Just after birth (within two weeks) ..... 1 Later 2	
IM14	HOW MANY TIMES (*name*) BEEN GIVEN THESE DROPS?	No. of times ..... ☐☐	
IM15	HAS (*name*) EVER BEEN GIVEN "**DPT/ HepB/ Hib1** VACCINATION INJECTIONS" – THAT IS, AN INJECTION IN THE THIGH AND BUTTOCKS – TO PREVENT HIM/HER FROM GETTING TETANUS, WHOOPING COUGH, DIPHTHERIA, HEPATITIS B, *HAEMOPHILIS INFLUENZAE TYPE B*? SOMETIMES GIVEN AT THE SAME TIME AS POLIO.	Yes ..... 1 **No** ..... **2** **Don't know** **8**	2⇨IM17 8⇨IM17
IM16	HOW MANY TIMES?	No. of times ..... ☐	
IM17	HAS (*name*) EVER BEEN GIVEN "MEASLES VACCINATION INJECTIONS" OR MMR – THAT IS, A SHOT IN THE ARM AT THE AGE OF 9 MONTHS OR OLDER - TO PREVENT HIM/HER FROM GETTING MEASLES?	Yes ..... 1 No ..... 2 Don't know 8	
IM18	HAS (*name*) EVER BEEN GIVEN "YELLOW FEVER VACCINATION INJECTIONS" – THAT IS, A SHOT IN THE ARM AT THE AGE OF **9** MONTHS OR OLDER - TO PREVENT HIM/HER FROM GETTING YELLOW FEVER? SOMETIMES GIVEN AT THE SAME TIME AS MEASLES	Yes ..... 1 No ..... 2 Don't know 8	

			Yes	No	DK	
IM19	PLEASE TELL ME. IF (*name*) HAS PARTICIPATED IN ANY OF THE FOLLOWING CAMPAIGNS, NATIONAL IMMUNIZATION DAYS AND/OR VITAMIN A OR CHILD HEALTH DAYS:					
IM19a	CHILD HEALTH DAYS, VIT-A CAMPAIGN		1	2	8	
IM19b	MEASLES & VITAMIN A CAMPAIGN		1	2	8	
IM19c	CHILD HEALTH DAYS - VIT. A & DEWORMING CAMPAIGN		1	2	8	

IM20 **Does another eligible child reside in the HH for whom this respondent is mother/caretaker? Check HH listing, column HL8.**

☐ **Yes ⇨ End the current Form and go for another 'Child < 5 Form' to administer the Form for the next eligible child.**

☐ **No ⇨ End the interview with this respondent by thanking him/her cooperation.**

If this the last eligible child in the HH, go on to Anthropometry Section (C.8).

C.8: Anthropometry			AN
#	Question	Options	Skip
After completing Forms for all children age 6-59 months, the weight and height measurements of each child are to be taken. Record weight and length/height below, taking care to record the measurements on the correct Form for each child. Check the child's name and line number on the HH Listing Section before recording measurements.			
AN-A	**Check UF11: Child age 6-59 months?** ☐ **Yes ⇨ Continue to AN-B** ☐ **No ⇨ END**		
AN-B	Name and Line Number of the Child _____	Line Number ..... ☐☐	
AN1	Child's weight	Kilograms (Kg) ..... ☐☐.☐	
AN2	**Child's length or height. Check age of child in UF11:**		
	☐ **Child age below 24 months ⇨ Measure length (lying down).**	**Length (cm)** Lying down ..... ☐☐☐.☐	
	☐ **Child age 24+ months ⇨ Measure height (standing up).**	**Height (cm)** Standing ..... ☐☐☐.☐	
AN3	Measurer/investigator identification code	Measurer Code ..... ☐☐	
AN4	Result of measurement	Measured ..... 1 Not present ..... 2 Refused ..... 3 Others (Specify) _____ 6	
AN5	**Is there another child in the HH who is eligible for measurement?** ☐ **Yes ⇨ Record measurements for next child.** ☐ **No ⇨ End the interview with this household by thanking all participants for their cooperation.** **Gather together all Forms for this HH and check that all identification numbers are inserted on each page. Tally on the Household Information Panel the number of interviews completed.**		

Remarks/Observations by the Supervisor/Editor/Coordinators:

Kenya - Eastern Province, Mbeere District

Multiple Indicator Cluster Survey

2008